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# *The Museums Journal*

Elijah Howarth, W. Ruskin Butterfield, F.  
R. Rowley, Charles Madeley, Museums Association

HARVARD UNIVERSITY.



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SEP 10 1904

THE  
MUSEUMS JOURNAL

THE ORGAN OF THE MUSEUMS  
ASSOCIATION.

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EDITED BY

E. HOWARTH, F.R.A.S., F.Z.S.,

*Museum & Art Gallery, Sheffield.*

★

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*Museum & Art Gallery, Sheffield.*



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# THE MUSEUMS JOURNAL.

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July, 1903.

No. 1.

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## Museums Association :

ANNUAL REPORT OF THE COUNCIL SUBMITTED AT THE  
ABERDEEN CONFERENCE, 1903.

---

IN accordance with the plan agreed upon in 1901 and begun in 1902, the council now desires to make its report on the period that has elapsed since the last annual meeting. That meeting, the highly successful conference held in Bradford last July, has already been described (see *Museumis Journal*, August, 1902) and needs no further reference now.

The executive committee has met twice during this interval to discuss the conduct of the *Journal*, preparations for the coming annual meeting, and general matters connected with the working of the Association.

The Association has made steady progress during the period under consideration; six museums and eighteen members have been added to our roll. The only matter for regret is that the attendance at our annual meetings does not shew a growth proportionate to the increase of our membership. Your council cannot help feeling that a larger number of curators could, at the cost of a little effort, attend these meetings; and this applies even more strongly to members of museum committees.

A most gratifying feature in the year's progress is the increased circulation of the *Journal*. There has always been a certain number of outside subscribers to this publication, people who are not connected with the Association, but who obtain the *Journal* by payment from the publishers. The number of such subscribers has doubled during the year. This is particularly gratifying, for it shews an increasing interest on the part of the public in museum matters.



Another pleasing feature of this increase is that, in spite of additional eight pages of the Museums Directory appended to the *Journal*, the cost has been more than covered.

The Museum's Directory, referred to above, began in September, 1902, and has been pushed forward steadily since. This work has not met with the support that was expected. Some museums, it is true, responded promptly and gave full information, but several were very tardy. When it is remembered that our aim has been to publish alphabetically, it is easy to see how greatly a single negligent museum may obstruct progress. The editor is absolutely in the hands of those to whom he applies for information, upon them it depends whether this work is to be a full and useful, or an imperfect and unsatisfactory one. It is important that members of this Association should impress on all outside museum friends the fact that these enquiries are not sent simply to gratify idle curiosity.

The financial condition of the Association will be fully dealt with in the Treasurer's Report. But it might here be stated that the balance in hand is large enough to warrant our investing some portion of it in permanent securities. Your Council advises the appointment of Trustees to administer this matter.

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### **Some practical notes on mounting Coins, etc.**

---

By WILLIAM H. EDWARDS, Victoria Institute, Worcester.

[Read at the Bradford Conference, 1902.]

SO much has been said and written from time to time on the practical side of museum work that it is with considerable hesitation I am submitting the following brief account of the method adopted in arranging the coin collection in our Worcester Museum to the members of the Museums Association.

I do so with a two-fold motive, first because I venture to hope some of the hints thrown out may commend themselves to a few of my fellow curators who like myself have the misfortune to be in charge of a museum where funds are very

limited and who therefore strive to get the best possible results with a minimum expenditure of money, and who have only a limited amount of exhibition space at their command.

My second reason is perhaps not altogether an unselfish one as I hope it may elicit the criticism and advice of some of my more experienced colleagues.

Having a considerable number of miscellaneous coins, tokens, and medals stored in our museum, all of which were carefully wrapped up in at least two papers and most elaborately numbered and catalogued with consecutive catalogue numbers, independently of consecutive numbers for each monarch, I imagined that my task of classifying them would not present any very great difficulty. Imagine my feelings when, after looking through two sets of catalogues and between two and three thousand coins, I found that practically none of the numbers in any way corresponded with the catalogues. How this unfortunate error occurred I cannot attempt to explain.

The coins were therefore taken seriously in hand, all the old catalogue numbers ignored and the whole series classified in the following order :—

Commencing with the Greek and Roman [of the latter we had rather a long series, representing most of the principal Emperors, many of them being local, though of course all particulars were lost owing to the wrong numbering], and then following with Early Scotch, Early British, and Anglo-Saxon, to the English coins proper. Then come coins of the British Possessions, and lastly our Foreign series commencing with European ones, and so on.

After these follow the Tokens which are arranged under 17th, 18th, and 19th century headings, and the collection is concluded by a small series of historical and other medals.

The whole are arranged in strict chronological order, and according to value, following in the sequence of gold, silver, and copper.

And now as to the method of display; there being no available exhibition space in the museum I determined to utilise an old mahogany botanical cabinet which was already

fitted with a number of soft pine sliding shelves running closely together in grooves. Some shallow sides were fitted to these shelves with a rebate worked on the top edge to receive a pane of stout sheet glass, thus making shallow drawers with an internal depth of about half an inch. This depth was decided upon for the sake of uniformity as some of the larger medals required this depth, though of course shallower trays would have sufficed for the coins. The drawers are  $27\frac{1}{2}$  inches long by 19 inches wide, and are made so as to be interchangeable in order to facilitate classification as well as the insertion of fresh specimens from time to time.

The glass is secured in a simple and economical manner by small black enamelled angle plates of iron, fastened with a short screw ; there is one at the back and another at the front of each drawer.

I particularly wish to emphasise the fact that the bottoms must be of pine—or some other soft wood without knots – for reasons which will appear later.

The drawers were lined with a comparatively cheap art felt cloth, costing about two shillings per square yard, of a dark neutral olive green colour, one which after experiment, I found most suitable as an all round colour for the display of either gold, silver, or bronze coins, and even the old oxidised greenish coloured Roman coins look well upon it. The cloth was fixed to the bottoms and sides with good glue, and the top edge of the rebate was also covered with cloth for the glass to rest upon, in order to exclude dust.

We now come to the special method of mounting to which I wish to call your attention. Instead of the usual circular holes which one generally sees bored in the bottom of a coin cabinet drawer, and which seem to me so unsatisfactory owing to the great difference in the sizes of the coins, I determined to try another and to myself, at least, a new method.

The coins were arranged upon the cloth bottom, each one being secured by three short pins, technically known by the drapers as “Sils.” These were pushed firmly into the wood, the heads cut off and the remaining short portion bent at right angles over the edge of the coin, but left so short as to be

scarcely noticeable. I found it necessary to bend the pins over to prevent the coins shaking loose when opening and shutting the drawers.

In most cases, except with rare coins which we were not likely to obtain, ample space was left between the individual coins as well as between each row in order to easily insert additions.

The cloth recommended appears to me to possess great advantages, apart from its cost, over velvet or plush, as having practically no pile, it does not show any distinct indentation on the removal of a specimen for re-arrangement, a slight brushing being quite sufficient to remove any mark there may be. Another advantage is that this cloth does not fade to any appreciable extent, and we have tested it rather severely on two occasions when the trays have been removed from the cabinet and placed on exhibition in our art gallery for upwards of three months at a time.

The dividing lines between the rows of coins are formed of a stout crochet cotton of an "old gold" colour, which harmonises well and yet is sufficiently distinct. It is fastened by twisting round short pins which are pushed close down into the bottoms of the drawers, hence it can be easily moved for re-arrangement if required.

With regard to labelling, I think the photograph I am handing round sufficiently explains itself, and I regret this is the only copy I have with me now.

Perhaps I may explain that the principal labels, such as "country" headings, are of black cardboard with a red border, while the "monarch" labels are also black, but without a border; both have the lettering done with Chinese white, and the "monarch" label gives the date during which the individual reigned. The labels for the coins themselves give the value, date, place of minting, etc., wherever possible, and are of a pale French grey colour, with black letters. It is possible that a pale buff-cloured label would harmonise better with both the coins and the dark green cloth.

As far as possible the coins are arranged in pairs so as to show both obverse and reverse.

In conclusion the chief advantages claimed for this system are its cheapness, simplicity of arrangement, and easy method of inserting additional specimens, which can be accomplished by removing a few pins and compressing either the individual coins in each row, or even with a very small amount of trouble an entire row can be inserted.

This certainly compares favourably with the difficulty of trying to insert a large coin, such as a shilling for example, in a comparatively small hole, only made large enough for a sixpence, or *vice versa*, and also with the depressions which are found if either plush or velvet are used, and which it is almost impossible to obliterate.

As previously mentioned the drawers are interchangeable, so that in case of a large addition to any section fresh specimens can easily be inserted, and being securely glazed are available for placing on tables for temporary exhibitions which we hold occasionally in our art gallery.

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## Re-Shelving of Museum Cases.

By HERBERT BOLTON, F.R.S.E.

[Read at the Aberdeen Conference, 1903.]

SO many museums find it necessary to retain in use various old cabinets of an obsolete type, that a brief description of the mode of re-shelving of several cases of this character in the Bristol Museum may prove useful.

The bird collections of the Bristol Museum are contained in a series of cases each about 7 feet in height, 12 feet long, and 2 feet 6 inches wide over all.

The front of each case is formed of two large frames, each divided up by narrow sashes into twelve windows, arranged in four rows. Each side of a case, therefore, contains four rows of windows, and six in each row.

Each window pane forms a square of 1 foot 10 inches. The breadth of each case measured internally from window to window is about 2 feet 2 inches.

As first constructed, the cases were fitted with a central vertical partition consisting of match board panels, and carry-

ing by means of short arm brackets, a number of 6 inches shelves upon each side. On these, the specimens were arranged in rows, the inner side of each bird being in close contact with the wooden partition and therefore hidden from view.

The necessity for a re-construction of the cases existed inasmuch as the whole series of the wooden shelves, and vertical partitions had become invested with insect pests, and were extremely dirty.

The lower room of the museum is insufficiently lighted, what light it receives coming mainly from that side where the bird collection is placed.

The cases stand in a row, and to the wall, so that a number of alcoves or bays are formed, one end of each case being backed by the external wall, the other standing out into the room. An external window throws its light into each alcove thus formed.

It is manifest that the presence of an opaque partition in each bird case, prevented any diffusion of the light laterally.

In considering the question of re construction, special attention was paid to the question of increased lighting of the room, and the desirability of an all round view of each specimen. To bring this about, it was required to substitute the old wooden shelves and central partition, by something which would enable the case to be open from side to side, not readily harbour pest, and be as little obtrusive as possible. As it is hoped to replace the cases by others of a more modern character in a few years' time, it was not desirable to use plate-glass for shelves, and to make as much of the shelf fittings as possible of such a character, as to allow of their being transferred to new cases when the latter are constructed.

Having made frequent use of T and "Strap" iron for various purposes, I sketched out a system of uprights and cross bars, which with slight modifications from the first type, has now been adopted all through with excellent results.

The gain in increased lighting is considerable. There is nothing except the specimens themselves, to obstruct the view,

or the passage of light; each specimen can be viewed all round, and the shelf width has been increased to the full internal width of each case.

The shelf-fittings now consist of square vertical rods  $\frac{3}{8}$ ths of an inch diameter, placed at suitable distances apart, and each having foot and head pieces welded on, which can be screwed into the top and bottom of the case. The rods are of sufficient length to insure the foot and head plates being flush with the surface.

At suitable heights (the second and third horizontal sash levels), the vertical rods have been tapped and threaded to take screws, and these latter serve to hold transverse bars  $1\frac{1}{2}$  inches broad and  $\frac{3}{16}$ ths of an inch thick in position. Each transverse bar is bent downwards at a right angle where it abuts against the vertical support, and is then continued downwards for 2 inches, the  $1\frac{1}{2}$  inch width being narrowed down to  $\frac{3}{8}$ ths of an inch, or the thickness of the vertical bar. Attachment to the latter is by means of two short stout screws.

The upper surface of each bar is also hammered or filed down where it abuts against the upright, thus forming a narrow bed which gives a bearing to longitudinal bars of T iron, which run the whole length of the case. The leg to the T is cut away, where a transverse bar is crossed, leaving the flat strap-like top to fit in the depression made for it, when its upper surface lies flush with the upper surface of the transverse bearers.

The transverse bar at each end of the case is screwed to the case uprights, the vertical rods being here unnecessary. The whole of the bearing surface is covered with green baize to diminish vibration, and obviate any risk of scratching of the glass.

The shelves consist of sheets of 32 oz. glass.

The use of longitudinal T iron was found necessary, owing to the tendency to sag down, and to lateral warping in the case of flat iron.

By the use of the T iron, each sheet of glass is supported along all its edges and is capable of carrying a heavy load.

In practice, the arrangement has worked well, and proved economical.

The cost of materials and of fitting each case of 12 feet length,  $2\frac{1}{2}$  feet width, with two shelves, each running the whole length of the case, has not exceeded a sum of £2 10s.

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Mr. H. M. PLATNAUER, York, said he objected to glass on account of the liability of specimens to move along it; while another delegate favoured T-iron shelves and a net-work of brass wire.

The PRESIDENT referred to the advantages of glass in letting the light through, and in securing a smooth surface.

The SECRETARY (Mr. Howarth) pointed to the excellence of the fittings in shops; and the president said they had only to go to shops, which had to make things pay, to learn from them, from a practical as well as an artistic point of view.

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## Museum Publications.

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CITY OF SHEFFIELD.—Forty-sixth Report of the Committee of the Free Public Libraries and Museum of the City of Sheffield, from March 26th, 1902, to March 25th, 1903.

As regards the libraries, mention is made of the want of a reference library. We note that the usual Carnegie Library is about to be erected at Walkley. In one of the board-schools, the master is advising his elder scholars what to read; this is a step in the right direction. A series of lectures was given at various libraries. The museums, it is pleasing to note, have been well patronised by the public. 272,640 persons visited the Weston Park museum and Mappin Art gallery on weekdays, and 87,720 the Mappin Art gallery on Sundays. (The museum is not open on Sunday.) A total of 360,360, or 18,903 more than in the previous year. Many additions have been made to the museum, chief of which are a collection of corals, presented by Mr. John Morgan, of Worthing, two cases of British birds, given by Mrs. Clark, and several valuable engravings. Of the purchases the chief are some lovely iron work, mediæval glass, and other art objects from the Heeswijk collection.



At the High Hazels Museum, there was a total attendance of 93,820, a most satisfactory number.

CITY OF SHEFFIELD.—THE RUSKIN MUSEUM,—Annual Report of the Committee for the year ending March 25th, 1903.

The attendance of the public continues to increase, the total number of visitors being 58,325 or 17,745 more than in the previous year, but there is not, unfortunately, a corresponding increase in the number of students, nor have the handbook and catalogue sold so well. A special exhibit of original drawings and engravings, after Turner, was held, and a very instructive series of lectures was given by the curator. Mr. Allen, the publisher, and Mr. Ruskin's literary executors have jointly given to the museum the complete new library edition of Ruskin's Works in thirty-two volumes. We must congratulate Mr. Gill Parker on the work he is doing to bring before the people the art treasures at his disposal, the museum is being made more attractive and accessible, and the lectures, though these must involve an immense amount of work and preparation, are amply repaying all in the increased attention and attendance of the public.

THE MANCHESTER MUSEUM, OWENS COLLEGE

Publication 41. (Notes No. 10.) The Red Sandstone Rocks of Peel (Isle of Man), by Professor Dawkins.

In this monograph Prof. Dawkins argues that these rocks should be assigned to the Permian and not to the Carboniferous series, and he gives a detailed description of them, with their various thicknesses and general composition. They correspond to the formations found in England in the Lake district, Lancashire, and Cheshire.

Publication 42. (Notes No. 11.) The Carboniferous, Permian and Triassic Rocks under the Glacial Drift in the North of the Isle of Man, by Professor Dawkins.

The whole of the Isle of Man north of a line drawn due west from Ramsey is covered with a thick mantle of glacial drift. Six borings were carried on between 1891 and 1898 to determine the characters of the subsequent layers and prove that the carboniferous limestone, the Yoredale rocks and the Permian and Triassic series lie buried under the drift. Full reports are given of the results of each boring.

Publication 43. (Notes No. 12.) On Bigbury Camp and the Pilgrims' Way, by Professor Dawkins.

The British camp in Bigbury wood, two miles due west of Canterbury, was described by Hussey in *Archæologia Cantiana*. Objects were found in it in 1861, and a further examination was made in 1895, and many iron weapons and tools were discovered, including iron ploughshares, socketed spears, daggers, &c. The settlement belongs to the prehistoric iron age about one or two centuries before Cæsar's invasion. The Pilgrims' Way is of the same period.

Publication 44. (Notes No. 13.) The Use of Museums in Teaching, by W. E. Hoyle, M.A., F.R.S.E.

This is a reprint of the paper printed in this journal February, 1903, pp. 229-236.

Publication 45. (Notes No. 14.) Notes on the Type specimen of *Loligo eblane*, Ball, by W. E. Hoyle, M.A., F.R.S.E.

This is a review of the description of a cephalopod described in 1841 by Robert Ball, with a useful bibliography, and notes of the present geographical distribution of the species.

Publication 46. (Notes No. 15.) The Macro-Lepidoptera of Sherwood Forest, by J. Ray Hardy.

This is a list of specimens captured by the author between March, 1879, and September, 1900, all of which are in the Manchester Museum.

CITY OF PERTH.—Perthshire Natural History Museum. Report.

The year covered by this report is not stated, but as the date of printing is given as 1903, we may presume that the report is for the year 1902. It is always advisable to print on the outer cover a definite statement as to the period for which the report is made. Previous reports have appeared in the proceedings of the Perthshire Society of Natural Science. Four more plate-glass tanks for live specimens have been added for fishes, and three for amphibians. Typical specimens for teaching botany have been obtained. Various educational bodies use the museum, and in connection with the Children's Essay Competition, which was on the "Insects of Perthshire," one hundred essays were sent in. 12,790 persons visited the museum, which is now maintained by the city of Perth.

THE BOOTLE FREE LIBRARY, MUSEUM, AND TECHNICAL SCHOOL JOURNAL.  
—Vol. III. (No. 22, June, 1903.)

This periodical aims at keeping the public informed as to the new books in the library, short critical notes being given, summaries of other papers and an olla podrida of information valuable to the inhabitants of Bootle.

CITY OF HEREFORD.—The Thirty-first Annual Report of the Committee of the Public Library and Museum, 1902-1903.

During the year several cases of rare birds have been purchased, and the usual local coronation medals and the inevitable Boer rifle added to the stock. The number of visitors is not given.

Fiftieth Annual Report of the Committee of the Public Libraries, Museums, and Art Gallery of the City of Liverpool for the year ending 31st December, 1902.

The general report of the librarian indicates the increased public appreciation of the help the staff give to assist those who wish to use the libraries for purposes of study as well as recreation. As regards the museums, the total number of visitors was 310,472, a daily average of 1,175. Twenty-two lectures were given by members of the staff. Several dredging excursions in the Mersey estuary and Irish Sea resulted in the acquisition of some hundreds of specimens. The recognition in the Education Code of time devoted to museum instruction as school attendance has much extended the value of the teaching use of the museum. A description of the school cabinets is given.

Catalogue of the Loan Collection of Drawings in the New Picture Gallery in the Norwich Castle Museum, 1903.

The loan collection consists of three groups (1) Turner, (2) J. S. Cotman, (3) Thirtle and the Norwich School. An admirable and representative collection has been put together,

HASTINGS AND ST. LEONARDS MUSEUM ASSOCIATION, BRASSEY INSTITUTE, HASTINGS.—The Annual Report for the years 1901, 1902.

The museum was opened in 1892, and in 1902 was visited by 28,309 persons. It is managed by a joint committee of the Corporation and local museum association. During the year various collections have been exhibited, a noteworthy one being plate and documents belonging to the Cinque Ports.

Lord Brassey has given seven counter cases and four wall cases. The report for 1902 comments on the continued progress of the museum, somewhat hampered, however, by lack of room.

CITY OF NOTTINGHAM,—Annual Report of the University College, Free Public Libraries, and Natural History Museum Committee, 1902-1903.

During the period covered by the report, the museum was open to the public on 264 days and was visited by 79,677 persons, a daily average of 302. Lieut.-Col. Birkin, D.S.O., has presented an extensive series of stuffed skins, skeletons, skulls, and horns of South African animals, as well as other zoological specimens. Mr. Marshall, of Torquay, has given some valuable European land and freshwater shells.

CORPORATION OF GLASGOW (Parks Department), Museums and Galleries. Report for year 1902.

The institutions embrace—

- i. Glasgow Art Gallery and Museum, Kelvingrove.
- ii. The Corporation Galleries of Art.
- iii. The Green Branch Museum (People's Palace).
- iv. Camphill Branch Museum, Queen's Park.

A short review is given of the progress of the art gallery from 1856 to date, and a full description of the arrangements of the various collections in the new Kelvingrove Museum and Art Gallery, which latter is exceptionally fortunate in gifts, such as Botticelli's "The Virgin with Angels," given by Mrs. Walker, of Limefield; Sir Daniel Macnee's portrait of Sam Bough, given by Mr. Hugh Reid; the portrait of the last Earl Marischal by Van Loo, given by Mr. C. C. J. Douglas, and many others. The governors of the Technical College have given many specimens once belonging to the museum of Anderson's University, and Professor Fleming, of Edinburgh, has given his scientific collections consisting of two valuable cabinets of minerals, a herbarium, and various papers. The number of visitors to the corporation galleries (closed on 20th September) was 78,915; to the Kelvingrove Art Gallery October, November, and December, 310,395; to the Camphill Branch, 72,321; and to the People's Palace, 423,262.

CITY AND COUNTY BOROUGH OF BELFAST.—Fourteenth Annual Report of the Committee of the Public Libraries, Art Gallery and Museum, 1902.

The customary application to Mr. Carnegie has resulted in a gift of £15,000, to build three branch libraries. A curious and instructive list is given of the number of times notable and popular books have been issued during the year. The mental digestion of the Scots-Hibernian race must be much stronger than that of its effeminate neighbour to judge by the books mostly called for, and there is a certain liking for theological philosophy which is noteworthy. The art gallery and museum were open on 305 days and visited by 368,668 people, a daily average of 1,208. Only one painting has been added to the gallery during the year, "A Winter Scene in Holland," by Corunenbergh, given by Sir Robert Lloyd Patterson. Mr. Welch has given shells and photographs of Irish antiquities, and a pre-historic kitchen-midden case has been added.

THE CARNEGIE MUSEUM, PITTSBURGH.—Prize Essay contest, 1902.—Publications of the Carnegie Museum, Serial No. 19.

813 papers on one of the following subjects were submitted to the examiners—(1) "Bird Life" as illustrated by the collections in the Carnegie Museum, (2) "Minerals and Gemstones" as illustrated by the collections in the Carnegie Museum, (3) "Why I like the Carnegie Museum." A full list is given of the candidates, and two of the successful papers are printed.

JOURNAL OF THE ARCHITECTURAL, ARCHÆOLOGICAL, AND HISTORIC SOCIETY for the County and the City of Chester and North Wales. New Series, Vol. IX., 1903.

This publication is one of the most admirable journals of its kind in existence. The articles are well written, accurate, and beautifully illustrated. The descriptions of various parts of Chester Cathedral by the Ven. Archdeacon Barber are models of lucidity, they are (1) The Cloisters, (2) The Stalls, Misereres, and Woodwork of the Choir, (3) The South Transept. Dr. Bridge contributes two papers (1) "Ludlow and the Masque of Comus," evidence of a deep and thoughtful study of Milton's delicious poem, and (2) The Chester Miracle Plays, chiefly a discussion on the supposed

authorship of "Ralph Higden." Mr. May gives some good notes on four leaden weights of supposed Roman origin in the Grosvenor Museum, Chester. The report of this museum, which the society maintains, mentions the pleasant circumstance that the workmen of the city are in the habit of bringing their finds to the museum of their own accord.

THE WILSON BULLETIN. Nos. 41 and 42.

No. 41 (Dec., 1902) of this interesting ornithological journal opens with a paper on "The Cuban Tody," *Todus multicolor*, by John W. Daniel, Junr. The todies are peculiar to the West Indies, the six species being confined to the Greater Antilles, a separate species upon each island. The tameness of the birds is remarkable. "Among the Vultures in Asia Minor," by H. C. Tracey, gives a good description of the various vultures and a graphic account of a hunt culminating in the capture of a black or monk vulture. A paper by Frank Bruen, on "Some Bluebird Boxes and Troubles," is an account of the endeavours of the writer to assist the Bluebird by providing nesting boxes, and at the same time to prevent the ubiquitous English sparrow from annexing them. Three interesting papers on fieldwork are "My Summer Boarders," "All Day with the Birds," and "Water Birds."

In No. 42 (March, 1903), the first paper, "Notes on the *Leucostictes*—gray-crowned and Helpburn's," by P. M. Silloway, is an admirable study of the habits and life-history of the species. In "The Best Place of All," Miss R. M. Leete gives a charming article, full of careful observations of bird life. Mr. Henninger's article on "The *Motacillidæ* of Germany" is a study of the habits of the wagtails and pipits. The paper on "The Yellow-throated Vireo" (*Vireo flavifrons*) by J. W. Warren Jacobs, is a model of careful field work; the description of the nest and eggs is worthy of record.

THE BROOKLYN INSTITUTE OF ARTS AND SCIENCES issues a little publication, "The Children's Museum Bulletin," of which we have the numbers for March and April, 1903. Each *Bulletin* gives a list of the short science talks to be given dur-

ing the month, with brief, attractive and simply-written notes, well adapted for the purpose of enlisting the sympathies of children in museum and natural history work.

MUSEUM OF FINE ARTS, BOSTON.—Twenty-seventh Annual Report for the Year, 1902.

The report opens with an account, most appreciatively written and apparently well deserved, of the life and services of the late director, Charles Greely Loring, one of the veterans of the Civil War. A new museum is now being built, and the present building has been sold. The principal acquisitions during the year are a Pietà by Carlo Crivelli from the Panciatichi collection, Florence; a painting, "Justice," by Paul Veronese; several Japanese prints, a collection of carvings in amber, ivory, &c., bequeathed by William Arnold Buffum, forms a truly magnificent bequest. The Egyptian department has received many objects, chiefly from excavations at Abydos and Fayum. The Wales bequest of books, paintings, pottery and porcelain forms a most valuable addition, one clause of the will making this bequest is worthy of being permanently enshrined in the minds of possible donors, "the committees of said museum need not hesitate to refuse any of the above articles from motives of delicacy, as I know too many articles are offered them that are not worthy of a place in the museum." The number of admissions during the year was—paid admissions 21,928, free days (Saturdays and Sundays) 174,756, other days 60,379, a total number of 257,963. The average number on Sundays was 2,111, Saturdays 1,249, other days (paying days) 85—rather an eloquent testimony in favour of free admission.

Annual Archaeological Report, 1902, being part of Appendix to the Report of the Minister of Education, Ontario.

This report is evidence that our Canadian brethren are not behindhand in their endeavours to find and preserve objects of a dying race which civilisation, whisky, and smallpox is rapidly driving out of existence. The list of accessions to the museum, nearly two thousand in number, is of a most valuable character. All the papers are well illustrated, and the details are most admirably given. In "Notes on some Specimens" the curator, Mr. David Boyle, describes some of the most im-

portant additions, chiefly Indian weapons and tools, many beautifully ornamented. An article by George E. Laidlaw on "Effigy Pipes in Stone" gives a minute and comparative account of these remarkable pipes, supposed to have had a totemic significance, *e.g.*, bear pipes used by the bear clan of the Huron-Iroquois. The measurements and place of discovery are given, and a sketch of each pipe. "The Archæology of Blenheim Township" is a paper by W. G. Wintemberg, giving an account of the examination of numerous Indian camps. Similar articles are contributed by F. W. Waugh on Atti-wandaron, or Neutral Village Sites in Brant County, and by R. T. Anderson on Malahide, Yarmouth, and Bayham Townships, also Notes on Sites of Huron Villages in the Township of Oro Simcoe County, Ontario. A most delightful account, with a flavour of old world romance about it, by Rev. A. E. Jones, S.J., on the Identification of St. Ignace II. and of Ekarenniondi, contains extracts from the old French historians, which give a realistic and sometimes lurid picture of the constant struggle between the white and the red man, a contest carried on without mercy and without remorse on either side; we seem to be living in an atmosphere of surprises, butchery, and retaliation. The paper on "Iroquois Folk Songs," by A. T. Cringan, Mus.B., attempts to preserve the melodies by transcribing them into modern musical notation. The songs were sung into a graphophone by an old Indian, "Red Cloud," and then subjected to exhaustive analysis. It is curious to note that the rhythmic faculty of the Iroquois was highly developed, and some of the melodies when tried over on a piano are not at all unpleasing though somewhat peculiar in their tonality. Of course of logical musical development, as we understand it, there is none, but the music is thoroughly characteristic and unconventional, perhaps some budding Wagner will look to these simple rhythms for inspiration when our modern themes shall have got a little more threadbare. It is impossible to speak too highly of this report, which embraces so many objects, and which indicates very clearly that across the pond they are not making the mistake of their mother-country in undervaluing the past.



REPORT OF THE SARAWAK MUSEUM FOR 1901 AND 1902, by R. Shelford,  
M.A., C.M.Z.S., Curator.

It is always a pleasure to read the reports of our Eastern museums, the weird nature of some of the specimens, the weirder character of the visitors, some welcome and others unwelcome, the constant depredations committed by thieves and insects, and the steady fight maintained against both, generally conducted on an insufficient sum doled out by a niggardly and cheeseparing government, all combine to make these reports more than ordinarily interesting. The Royal Asiatic Society is bearing the cost of the illustrations for an ethnographical catalogue of the museum, to be published next year, and as this museum has the most complete ethnographical collection of its kind in the world, the catalogue should be of extreme value. The list of additions comprises many Malay objects, a new species of bat described under the name *Hipposiderus Coxi*, and many other examples of the fauna and flora, some new to science and awaiting description.

THE CANTERBURY COLLEGE, CHRISTCHURCH, N.Z.—Thirtieth Annual Meeting held on Monday, March 30, 1903. Annual Report for the Year 1902.

The report of Mr. Hutton, the curator of the museum in connection with this college, states that there is in preparation an Index to the Fauna of New Zealand. The geological section has had presented part of a large fulgurite from Sydney, and fossils from England and Patagonia. The zoological section has acquired skeletons of Indian chevrotain and giant armadillo. Among ethnographic accessions are dresses from New Hebrides, New California, and South Africa. The New Zealand collections have received fifteen birds from the South Island and two carunculated shags, two skins of Butler's albatross, a glossy ibis, and other objects of local interest.

## General Notes.

### AT HOME.

CAMBRIDGE UNIVERSITY MUSEUM OF ZOOLOGY.—Mr. L. Doncaster, of King's College, has been appointed assistant to the superintendent at this museum.

CAMBRIDGE UNIVERSITY MUSEUM OF ZOOLOGY.—The late Mr. T. Buckley, of Trinity College, has bequeathed his collections to this museum. They include about 440 volumes of books, and about 400 birds.

F. W. RUDLER, C.I.S.O.—Our congratulations to Mr. Rudler, who on the King's Birthday was appointed a Companion of the Imperial Service Order, in recognition of his valuable labours at the Museum of Practical Geology. Although Mr. Rudler retired last year, he is still undertaking some work at the museum at the special request of the authorities.

THE HISTORICAL SERIES OF WATER COLOURS—THE PRIZE ESSAYS.—It will be remembered that Mr. James Murray, of Glenburnie Park, Aberdeen, chairman of the art gallery committee, intimated some time ago that he would present certain prizes for the best essays upon the historical series of water colours then being exhibited in the art gallery. The essays fell to be delivered to Mr. Thomas Hector, clerk of the Aberdeen School Board, not later than 30th April last, and a large number of competitors entered for the prizes. These prizes were grouped as follows:—Group A.—Pupils attending elementary and central schools; ages, 12-14; prizes, 20s., 15s., 10s., and twenty prizes of the value of 5s. each. Group B.—Pupils attending Grammar, High, and private schools, and Gordon's College; ages, 12-14; prizes, 20s., 15s., 10s., and five prizes of the value of 5s. each. Group C.—Pupils attending any school, without distinction, but excepting Gray's School of Art; ages, 14-16; prizes, 40s., 30s., 20s., and five prizes of the value of 10s. each. Group D.—Pupils attending any school, without distinction, but excepting Gray's School of Art; ages, 16 and over; prizes, 60s., 50s., 40s., and three prizes of the value of 20s. each. It was arranged that Mr. Robert F. Martin, of the Victoria and Albert Museum, South Kensington, London, should act as adjudicator, and he has now completed his work and delivered his report to Mr. Murray. The report is as follows:—"Herewith I submit the award in the late essay competition held in connection with the exhibition of water-colour paintings lately exhibited in the art gallery.

In forwarding the results, it is interesting to note that there were 282 entries. Of these there were 152 entries in Group A from 18 elementary schools, 42 entries in Group B from 8 colleges and schools, 57 entries in Group C from 11 colleges and schools, 31 entries in Group D from 7 colleges and schools. It is gratifying to find that nearly the whole of the essayists have carefully studied the collection, and have grasped the history of the art, less than 4 per cent. having failed to understand the subject. A surprisingly high standard of excellence has been attained throughout ; more especially is this noticeable in Groups C and D. In the latter, 16 out of 31 have obtained more than 75 per cent. marks. The drawings and water-colours sent in have been in many cases excellent. Keen perception of the beauties of the paintings has been shown by the competitors, some of the criticisms being most excellent ; others were quaint, some amusing. The composition itself was very good ; the papers well set out, the writing excellent, and the spelling, with the exception of a few papers, very good. Might I heartily congratulate yourself and the committee upon the success of the competition, reflecting as it does the greatest credit upon all the masters and mistresses of the various colleges and schools which entered, as from the papers themselves may be seen how great was the care and trouble which they had bestowed upon their pupils to obtain such excellent results."

A MODEL MUSEUM.—The following is from the *Morning Leader* of June 29:—Warrington is not an ideal Eden for one train-bound, as I was the other day, but I had reason to be thankful for the hour's interruption to my journey, if only that it gave me an opportunity of visiting and admiring the excellently arranged zoological collections in the Warrington Museum. I do not know who the curator is, but I allow myself to congratulate him unreservedly on the method of his arrangements. Those interested in nature study might, with advantage, pay a visit to his cases, and study them as models. The cases with specimens illustrating every animal group, may be understood by children. For fishes a perch, for batrachions a frog and spotted salamander, for reptiles a horned lizard and tortoise, for birds a wren, a robin, and a parrakeet, for mammals a weasel and a bat. Neighbouring cases display a score or so of invertebrate types, and the whole furnish a capital epitome. Another case shews the hard parts of the lobster, disarticulated and mounted to shew the crustacean structure. Others deal with insects injurious to fruits or vegetables. Here and there, too, as in a case of kingfishers and another of water ousels, down in the art room, there is evidence of highly tasteful taxidermy. At first I thought that

my pet group—fishes—had been strangely neglected, but these also are down in the art room. I do not, perhaps, quite like the Mersey sturgeon in with the sharks and rays, nor am I perfectly happy about the "Thames Burlbot," as the occurrence of that fish in the metropolitan river seems to me open to doubt. But the others, mostly casts, are excellent, particularly the flatfishes.—G. F. AFLALO.

PROPOSED MUSEUM AT RADCLIFFE, LANCASHIRE.—In connection with the free library movement at Radcliffe, Mr. Alderman Bealey offered £500, the sum asked by Lord Derby for the land, and Mr. J. R. Ragdale and Mr. A. Greenhalgh each promised donations of £125 and Colonel Mellor £50 towards a free library. In addition the Literary and Scientific Society have intimated their intention of giving their museum, which is valued at more than £600, to the town. Some weeks ago the District Council refused to accept the £5,000 offered by Mr. Carnegie, and declined to adopt the Public Libraries Acts, but in view of these recent developments it is now thought that they will reverse their decision in three months' time. If the council decline to alter their decision the three gentlemen named will give their subscriptions to the erection of a literary institution and public museum on the site originally chosen for the library building.

ESSEX ARCHÆOLOGICAL SOCIETY.—JUBILEE MEETING AT COLCHESTER.—The members of the Essex Archæological Society, which this year completes its 50th year of existence, held a special meeting at Colchester, June 25th, in celebration of the jubilee, it being considered that the event provided a favourable opportunity to appeal to the County for extended support of the society in its endeavours to encourage archæological research, to preserve ancient buildings, to record and make known historical facts, and otherwise to promote the objects for which it was formed. The council is desirous to add considerably to the membership, which now numbers 350, as with additional support in this direction the publications of the society could be increased and more frequently issued, and it is felt that with a little effort on the part of members, the numerical strength of the society could be brought up to 500. The president delivered an interesting address in which he outlined generally the history of the society, and pointed out the value and interest of the pursuit of archæology, not only as the handmaid, but as the corrector and verifier of history, and a study which, in the hands of an intelligent and judicious investigator, became history itself. He warmly acknowledged the assistance lent by the late Mr. Charles Gray Round and other members of the Round family in providing the society with a habitation at the castle, in which might be stored the

archæological treasures of the town and district, and said that the joint arrangements made with the corporation of Colchester, as to the museum, had resulted in their being able to preserve in Colchester one of the richest collections of Romano-British relics in the Kingdom. He alluded particularly to the acquisition of the Jarmin and Joslin collections, and said that before the establishment of the museum most of the treasures found in the district went to other parts of the Kingdom—so much so that there was hardly a museum in England or Scotland in which there were not numerous specimens of Romano-British remains which at some time had been found in Colchester, and had been lost because of the want of a place in which to deposit them. He also drew attention to the fine collection of coins of ancient Camelodunum now preserved in the museum, and after referring to various researches conducted by the society, said it had accomplished much good work, but there was still much left to do, before it could be said that archæology in Essex was occupying the position to which so interesting a science was entitled. That would need a larger income, and he appealed to members, as their president, to make a special effort to increase their numbers, while as hon. curator of the museum he asked for further donations of objects from parts of the county which were at present unrepresented. The Rev. Dr. Cox, who has been engaged in the preparation of the ecclesiastical portion of the Victoria County History of Essex, seconded the resolution. He complimented the society and the borough of Colchester particularly on the museum, remarking that their local objects of interest were tabulated and preserved in a manner that was considerably in advance of many towns and counties. It was passing strange how many centres of Romano-British work were so far behind Colchester, and he thought the society and the town were to be enormously congratulated on their care and the vigour which was shown in the study of the science. Mr. Romilly Allen added his congratulations in a similar strain, and said he did not think it was fully enough understood that the history of this country could not be fully written unless in the first place the history of every county were written, and that could not be done without the history of every parish. One great service which a society such as this could do was to acquire material for the history of the county, and in extending a knowledge of archæological subjects among the working classes. Frequently when works were being carried out, valuable "finds" had been lost simply for want of knowledge as to what they were.

A SAD SURVIVAL.—A paragraph which recently appeared in a Hull paper rather painfully revives the idea that the

museum as a curiosity shop is not yet obsolete. It refers to a presentation of a collection of relics from the Martinique eruptions to the Hull Municipal Museum. The paragraph goes on to say:—"The various objects illustrate as forcibly as it is possible to do the great havoc that was played by the eruptions and accompanying heat." How the objects manage to do this is somewhat obscure, for they appear to have no relation to the eruption, and consist of "an elaborate brass candelabrum and portion of the confessional box from the cathedral of St. Pierre; a vase and candle-holder in brass from a house at the same place; taps, a fork, hinges, portions of palisading, remains of a double-barrelled gun, and a quantity of melted glass, in which pieces of broken pottery are embedded, &c. There is also a fine iron cauldron on three supports, nine inches high, and of the same diameter, and a cheque from the Martinique Bank." We are then told that the whole of the relics illustrate in a most admirable manner the awful devastation caused during that famous eruption. How the preservation of a bank cheque, some candle-holders, forks, hinges, &c., serve to illustrate, especially in "a most admirable manner," the awful devastation of a volcanic eruption, is beyond even the powers of a curator to explain; nor is it easy to understand what good purpose these relics can serve in a museum.

IRISH GOLD ORNAMENT CASE.—The Irish gold ornaments case has been finally settled in a court of law, the decision being in favour of Ireland, and these gold ornaments will now be sent from the British Museum to the Museum of Science and Art, Dublin. Little did the farmer Nichol—Christian name unknown, but possibly Patrick—who when ploughing on the shores of Lough Foyle struck something hard at the bottom of the furrow, dream of all that would follow upon this not uncommon incident. The "something hard" turned out to be a very remarkable collection of gold ornaments. There was a collar, a model boat with a number of oars and spars, a bowl, a torque, a necklace, a chain. The find naturally excited much interest among antiquarians. The farmer sold the ornaments to a silversmith, and from him they passed into other hands, and eventually into the keeping of the British Museum. The Royal Irish Academy, which had not shown any anxiety to possess them down to that time, then claimed them as treasure-trove. The trustees of the British Museum very naturally declined to give them up. The question thereupon assumed a political interest, and the claim of the Royal Irish Academy was taken up and pressed by the Nationalist Members. Irishmen seldom allow their country to lose anything for want of somebody to ask for it. The British

Museum, however, had the protection of their special statute, which forbids the trustees to part with anything in their possession that is not either useless or a duplicate. Consequently the only way in which the ornaments could be got back to Ireland was by the Crown claiming them as treasure-trove, and bringing an action against the museum as the wrongful possessor of them. This was the case—"The Attorney-General *v.* Trustees of the British Museum"—in which judgment was given on June 20th by Mr. Justice Farwell.

EDUCATION AT THE CORK EXHIBITION.—The Nature Study Section, initiated by Count Plunkett, F.S.A., the secretary, in the Cork Exhibition, is now complete. Largely through the exertions of Mr. J. L. Copeman, of Cork, over seventy of the principal English public schools are well represented in the section. This division adjoins other schools' exhibits of remarkable importance and interest, including the Science and Manual Training Demonstrations carried on daily by the pupils of the Christian Schools of Cork. In neighbouring avenues are exhibits representing the great range of Ireland's building stone and mineral resources. The exhibition is in the main Irish, and freely illustrates processes of manufacture. In the fine stretch of land in the exhibition grounds by the Lee, called the Western Field, a large number of agricultural experiments are being carried out. An Irish family, living in a cottage such as the Irish Poor Law Boards build for labourers, cultivate their half-acre plot, beside a family of Normans, who dwell in a most picturesque Norman farmhouse, and shew the many small industries by which French peasants live and thrive. In a great Poultry Hall, a Bee House, and many other buildings, the teaching of home industries is systematically undertaken. The situation of the exhibition, in a wooded valley, is one of the most beautiful in Europe; and its rhododendrons are of almost unrivalled splendour.

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#### ABROAD.

MILWAUKEE PUBLIC MUSEUM.—Mr. Henry L. Ward has been elected custodian of this museum for a period of five years.

U.S. NATIONAL MUSEUM.—Dr. A. Hrdlicka has been appointed assistant curator of the division of physical anthropology at this museum.

PEABODY MUSEUM HARVARD.—Ethnological collections, mostly relating to the Indian tribes along the west coast of

America, have been placed in the exhibition room on the second floor of this museum, which formerly contained the Semitic collections.

PEABODY MUSEUM, YALE. - Mr. George G. MacCurdy, curator of the anthropological collections in this museum, has sailed for Europe, where he will make purchases for the museum.

MUSEUM OF COMPARATIVE ZOOLOGY, HARVARD.—Under the portrait of Dr. Alexander Agassiz in this museum, a bronze tablet has been placed, bearing the inscription: "Alexander Agassiz. This memorial of his great services to science and the University, given by his friends, is placed here by special vote of the President and Fellows and Board of Overseers."

CARNEGIE MUSEUM, PITTSBURGH.—Professor C. V. Hartmann, curator of archæology and ethnology at this museum, is now in Costa Rica. The museum has purchased from Senor Don Pedro Maria Velasco his collection of Costa Rican antiquities at present on deposit at the university of Pennsylvania, whence it will be removed at a later date. Another recent acquisition is the only specimen of *Rhinoceros simus* known to be preserved in the United States. Important additions have also been made to the entomological collections.

NATIONAL MUSEUM, WASHINGTON.—The March number of the *American Geologist* contains a paper by Dr. Charles Schuchert on "The I. H. Harris collection of invertebrate fossils in the United States National Museum." This collection was made chiefly from the Ordovician rocks in the neighbourhood of Cincinnati, but it also contains fine specimens from the celebrated crinoid locality at Crawfordsville, with others from Burlington, Iowa, and Waldron, Indiana, as well as from the famous carboniferous plant locality of Grundy County, Illinois. The collection is especially rich in fossil echinoderms, but Bryozoa and trilobites are also well represented.

AMERICAN MUSEUM OF NATURAL HISTORY.—This museum has arranged collections of invertebrate specimens for lending to the biology departments of such public schools in Greater New York as may make proper application. Two sets of collections have been prepared, the lesser comprising about forty-five specimens illustrating general characteristics, and the other a specialised collection, probably of one hundred and fifty specimens, showing typical forms of different species and, where possible, facts in the development of the type. Ten schools have already availed themselves of the loan.

AMERICAN MUSEUM OF NATURAL HISTORY.—The report for 1902 shows that this museum has completed its year's work without calling on the trustees for additional funds, the



city of New York having increased its annual appropriation for maintenance, besides contributing a sum for a power and heating station. The membership of the museum has increased. The field-parties have been enabled to cover a large territory, the various railway companies reducing for them the cost of travelling and of the carriage on the material collected. The attendance by the public and by teachers with their classes has been great, and the attendance at the lectures was also gratifying. In October the International Congress of Americanists held its thirteenth annual session at the museum, many foreign delegates being present. Dr. Hovey was sent on an expedition to Martinique and St. Vincent in May, in the course of which he made large collections for the museum. Among the additions (which have been unusually large) to the collection of mammals, is the gift from the Peary Arctic Club of about one hundred mammals collected by Captain Peary on his last Arctic expedition. Material was collected in the Bahamas and Virginia for special bird groups. The department of vertebrate palæontology has been enriched by the field expeditions. A fund, established by a member of the board of trustees for providing material to illustrate the origin and development of the horse, has produced immediate results of the highest importance. The Cope collection, including fossil reptiles, amphibians and fishes, and the Pampean collection of fossil mammals from South America, has been acquired by purchase. The archaeological material obtained during over twenty years' research in the Delaware Valley forms a special exhibit. Early in the year the Chinese collections were placed on temporary exhibition, and, in the spring, work was begun on the installation of the Siberian collections of the Jesup North Pacific Expedition, whose aim it is to collect full information of all the tribes of the North Pacific Coast. Results have already made evident that the relationship between Asia and America is much closer than has hitherto been supposed. The addition of rare specimens of gold, copper, and jadeite secured by the Mexican Expedition makes the Mexican collections superior to those of any other museum. The Duke of Loubat has presented an important gem collection from the State of Oaxaca, while Mr. J. Pierpont Morgan has made several gifts to the department of mineralogy, in addition to a splendid collection of gold and silver coins from the Philadelphia Mint. The department of invertebrate zoology has had added to it a collection of West Indian corals collected in Jamaica. Seven hundred specimens of moths from the Black Mountains of North Carolina have been acquired by the department of entomology. The report is concluded by mention of the progress of the scientific results attending the

investigations of the museum, the courses of lectures offered to teachers, to members and to the public under a grant from the State: to teachers, by the museum in co-operation with the Audubon and Linnæan societies; to the public by the city department of education in co-operation with the museum.

CAEN MUSÉE D'HISTOIRE NATURELLE.—This museum, which is connected with the faculty of science of the university, contains many valuable collections, and among them the collection of fossils made by Defrance, and frequently referred to by him in the *Dictionnaire des sciences naturelles* (1816-1828). Since in that work several names were given for the first time many of these fossils are to be regarded as type-specimens. We are glad to see that Professor A. Bigot has begun to publish a critical catalogue of the collection. An instalment of the first part, in which he is assisted by Mr. Matte, deals with 120 species of bivalve shells, and has just appeared in the *Bulletin de la Société Linnéenne de Normandie*, series 5, vol. vi., pp. 152-185.

BERLIN, MUSEUM FÜR NATURKUNDE.—Dr. Thiele has been appointed a curator in the zoological department of this museum.

MUSEUMS AND THE PEOPLE.—There is to be a Congress at Mannheim on Monday the 21st and Tuesday the 22nd of September in this year, to discuss the question of "Museums as places for popular culture." The Congress was initiated by the town council of Mannheim in view of a museum that is to be built there. It has however been arranged by an institution at Berlin, known as the Centralstelle für Arbeiter-Wohlfahrtseinrichtungen, the address of which is Dessauerstrasse 14, Berlin, S.W. 11. The president of this Institution, Geheimrath von Post, and the secretary, Dr. R. von Erdberg, have been in communication with museum officials and have arranged the following interesting programme:—

- I. "Museums as places of culture," by Dr. Lichtwark, director of the Kunsthalle, Hamburg.
- II. "The history of museums in the nineteenth century," by Dr. Jessen, Berlin.
- III Account of the attempts made, up till now, to render the treasures of museums useful to wider circles of the people;
  1. The Provinzial Museum in Altona, by its director, Dr. Lehmann;
  2. The Geological Museum in Berlin, by Professor Dr. O. Jaekel;
  3. The Roemer Museum in Hildesheim, by its director, Dr. Andreae;
  4. The Folkwang Museum in Hagen, by its owner, Mr. K. E. Osthaus.
  5. The Ruskin Museum in Sheffield by its curator, Mr. Gill Parker.

## IV. "The arrangement of museums."

1. Museums construction (ground-floor and façade), by Dr. Lichtwark of Hamburg.
2. Exhibition methods and labelling ; (a) in art museums (speaker not yet decided on) ; (b) in natural history museums, by Dr. Lehmann of Altona.

## V. "Methods of instruction in museums" :

Teaching through printed matter (libraries, catalogues, guides, monographs, leaflets) ; teaching by word of mouth (lectures, personally conducted visits).

- (a) In art museums, by Professor Dr. Kautzsch of Halle, A.S.
- (b) In natural history museums, by Professor Dr. Schauinsland of Bremen.

## VI. "Temporary exhibitions," by Dr. Deneken, director of the Art Museum at Crefeld.

This method of arranging a definite programme to discuss a given subject appears thoroughly practical, and should lead to valuable results. It is a method that might be adopted with advantage by our own Association. Dr. von Erdberg wishes that this Congress should be made known to members of the Museums Association, any of whom will be welcomed at Mannheim. We understand that a Report of the Congress will ultimately be issued, and those who wish to receive it, or to have any further information, should at once communicate with Dr. von Erdberg at the address given above.

## MUSEUMS ASSOCIATION.

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*Treasurer :*

Alderman W. H. BRITAIN, J.P., F.R.G.S. (Sheffield).

*Hon. General Secretary :*

E. HOWARTH, Museum, Sheffield.

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The object of the Association shall be the promotion of better and more systematic working of Museums throughout the Kingdom. In order to promote a better knowledge of Museums, the Association shall meet in a different town each succeeding year.

That each Museum contributing not less than one guinea a year be a Member of the Association, and that individuals interested in scientific work be admitted as Associates on payment of 10s. 6d. annually.

That each Museum be represented by three delegates, each having one vote. Each Associate to have one vote.

That each Museum belonging to the Association and each Associate receive one copy of the publications of the Association.

That a General Meeting of the Association be held annually, for the transaction of business, the reading of papers, and the discussion of matters relating to Museums.

# **BOTANICAL SPECIMENS**

## **FOR MUSEUMS.**

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**CONES OF RARE CONIFERS.**  
**INFLORESCENCES OF CYCADS,**  
CYCAS, ZAMIA, MACROZAMIA,  
CERATUZAMIA, STANGERIA, ENCEPHALARTOS, &c,  
MALE AND FEMALE.

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**SECTIONS OF BRITISH AND OTHER TIMBERS.**  
**SPECIMENS FROM THE TROPICS.**  
**SPECIMENS IN ALCOHOL and other media.**

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## **Models of British Fungi.**

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**ECOLOGICAL SPECIMENS.**

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# THE MUSEUMS JOURNAL.

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*August, 1903.*

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## Museums Association.

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### THE ABERDEEN CONFERENCE, 1903.

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SCOTLAND again proved an attractive place to the members of the Association, the attendance at Aberdeen being even larger than it was on the two previous occasions when the Association met in Scotland. Since the Glasgow meeting in 1896, the Association has shown a very rapid growth, and its members have increased materially since the meeting in Edinburgh in 1901, the natural development which has thus gone on accounting, in a great measure, for the large gathering at Aberdeen. This marked increase in the attendance at the Congress is highly satisfactory, because, after all, the most direct benefit is derived from the personal intercourse which these meetings make possible, especially as the institutions with which the individuals are connected are distributed all over the world, so that other opportunities of meeting are not likely to occur.

But, beyond mere numbers, the Aberdeen Conference was of exceptional interest as will be seen by the programme which is printed in another part of this issue, the subjects dealt with being not only of such a practical character as to be helpful to all engaged in museum work, but they were treated in a broad, lofty manner, that embraced all aspects of them.

The thoughtful address of the president set the right tone to the gathering, in its clear perception of the aims and purposes of museums, emphasising their functions, to meet all the requirements of those in any way interested in the subjects they illustrate. From the manifold opportunities which Dr. Bather has enjoyed of studying the museum question, on



the most extensive basis, by his foreign travel, as well as by his long connection with the British Museum, it was naturally expected that he would be able to give to his fellow-workers in all parts of the world, valuable information and advice. His luminous exposition of the functions of a museum, to serve the purposes of all engaged in study, or whose minds want guiding in directions beneficial to them, was full of thoughtful usefulness, founded on great learning, keen observation, and expert judgment. His illustrations also covered a very wide field, enabling him to apply with forceful logic, the lessons which his close study of museums enabled him to acquire. That his presidential address should have been practically a treatise on the art museum, or fine art gallery, was, perhaps, rather unexpected from one whose official life is so closely bound up with the scientific side of museums, and that again to a somewhat abstruse side of it. Yet his remarks will have weight with all art gallery officials, for they represent the opinions of the highly gifted visitor, rather than the expert. The lack of expert experience of art gallery administration was occasionally evident, though it did not lessen the value of his advice and experience as an art gallery visitor.

In some of the papers which followed there was a tendency to take a comprehensive view of the functions of a museum, and the good-natured criticism which many of them contained will receive general approval, and furnish guidance to museum curators. The more technical papers dealing with organisation, arrangement, and the better display of specimens brought out many points that may be profitably utilised.

The presence of three foreign delegates from European museums was particularly welcome, the excellent papers which they read giving an insight into museum methods beyond what is generally recognised in this country, and the other foreign papers sent also contained valuable hints from experience.

We hope to publish all the papers in the present volume of the *Journal*, together with the discussions, which were this year exceptionally suggestive and practical.

The reception accorded to the association by the Lord Provost of Aberdeen, was of the most cordial character, leav-

ing grateful recollections of warm friendship, liberal hospitality, and an earnest desire to make the meeting enjoyable.

To the Lord Provost and Town Council, the thanks of the association were warmly accorded for their splendid hospitality, for the excellent arrangements made for the meeting, and for the use of the Town Hall, which in every way met all requirements in an admirable manner.

Mr. James Murray, of Glenburnie Park, was a most efficient and courteous guide. His constant personal attendance, his ready resource, his genial manner, his thorough acquaintance with the art life of the city, as well as a large experience gained from extended travel, made his services specially helpful and agreeable, while the charming party and entertainment, given by Mr. and Mrs. Murray, at Glenburnie Park, formed a most delightful incident of the conference.

It was unfortunate that the week chosen for the meeting should have been that when the University authorities were inevitably engaged with the degree examinations. In spite of much inconvenience to themselves, they kindly admitted members to their picture galleries and scientific museums.

Altogether, from the point of view of attendance, the importance of the papers, the free interchange of ideas in the discussion, and the heartiness of the social functions, the conference in Aberdeen ranks as one of the best, most useful, and most enjoyable in the history of the Association, while the visit to Dundee formed an equally fitting conclusion to it. The collections in the Albert Institute of Dundee, were of such attractive interest and importance that it was a matter of regret that more time was not available for their study, and there was a unanimous feeling that at no distant date the Association should hold its meeting in that town. The arrangements made by Mr. John Maclauchlan for the visit to Dundee left nothing to be desired, its brevity being its only drawback, and the warmth of Scotch hospitality persisted throughout.

## List of Annual Conferences with Places of Meeting and Names of Presidents.

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YEAR.	PLACE.	PRESIDENT.
1. 1890	LIVERPOOL	Rev. HENRY H. HIGGINS, M.A.
2. 1891	CAMBRIDGE	J. WILLIS CLARK, M.A.
3. 1892	MANCHESTER	Prof. W. BOYD DAWKINS, M.A., D.SC., F.R.S.
4. 1893	LONDON	Sir W. H. FLOWER, K.C.B., D.C.L., LL.D., D.SC, F.R.S.
5. 1894	DUBLIN	VALENTINE BALL, C.B., LL.D., F.R.S.
6. 1895	NEWCASTLE-UPON- TYNE	Rev. CANON NORMAN, M.A., D.C.L., F.R.S., F.L.S.
7. 1896	GLASGOW	JAMES PATON, F.L.S.
8. 1897	OXFORD	Prof. E. RAY LANKESTER, M.A., LL.D. F.R.S.
9. 1898	SHEFFIELD	ALDERMAN W. H. BRIT- TAIN, F.R.G.S.
10. 1899	BRIGHTON	ALDERMAN A. J. HAWKES.
11. 1900	CANTERBURY	HENRY WOODWARD, LL.D., F.R.S.
12. 1901	EDINBURGH	Sir WILLIAM TURNER, K.C.B., D.SC, D.C.L., LL.D., F.R.S.
13. 1902	BRADFORD	W. E. B. PRIESTLEY, J.P.
14. 1903	ADERDEEN	F. A. BATHER, M.A., D.SC., F.G.S.

## Museums Association.

FOURTEENTH ANNUAL MEETING AND CONFERENCE,  
ABERDEEN, 1903.

### ORDER OF PROCEEDINGS.

MONDAY, JULY 13TH, 1903.

8.30 P.M. Meeting of Executive Committee, Imperial Hotel.

9 P.M. Meeting of Council, Imperial Hotel.

TUESDAY, JULY 14TH.

Welcome by the Lord Provost of Aberdeen.

9.30 A.M. TO 1 P.M. Address by the President (F. A. Bather, M.A.,  
D.Sc., F.G.S.).

Reading and discussion of the following papers:—

"The Aberdeen Art Gallery, its History and Collections," by James Murray, D.L.

"The earliest monuments and the archaic art of the North East of Scotland," by Prof. Wm. M. Ramsay, D.C.L., LL.D.

"On a method of mounting fish with natural surroundings," by Alex. M. Rodger.

"Some common errors in the representation of Stuffed Birds exhibited in Museums," by W. P. Pycraft, A.L.S., M.B.O.U.

"Practical Work connected with the Museum of Applied Art, Trondhjem," by Dr. Jens Thiis, Director of the Nordenfjeldske Kunstindustri-museum.

"The Pavilion System in Museums," by Director G. Johanson Karlin of the Kultur-historiske Museum, Lund, Sweden.

1.30 P.M. Luncheon, by invitation of the Corporation.

In the afternoon, visits were paid to the Art Gallery, to King's College to inspect the Museum, and afterwards to the Cathedral of St. Machar, and the Brig of Balgownie.

## WEDNESDAY, JULY 15TH.

9.30 A.M. TO 1 P.M. Reading and Discussion of the following papers :

"Wall-museums for Schools," by Professor T. D. A. Cockerell, of the New Mexico Normal University, East Las Vegas, New Mexico.

"Natural History Museums and Drawing," by Dr. O. Lehmann, Director of the Altona Museum.

"A method of preserving the natural colours of dried leaves and flowers for museum specimens," by E. M. Holmes, F.L.S.

"On 'Good Form' in Natural History Museums," by F. Jeffrey Bell, M.A., F.Z.S.

"Re-shelving of Museum Cases," by Herbert Bolton, F.R.S.E.

"The Museum-problem in Europe and America," by Professor Dr. Anton Fritsch, of the Bohemian Museum, Prague.

In the afternoon a visit was paid to Marischal College. The Zoological Collections were described by Prof. J. A. Thomson, and Mr. A. W. Gibb, M.A., B.Sc., explained the Geological Collections.

3.30 TO 5.30 P.M. Garden Party at Glenburnie Park by invitation of Mr. and Mrs. James Murray.

7.30 P.M. Association Dinner in the Imperial Hotel.

## THURSDAY, JULY 16TH.

9.30 A.M. "The Western Australian Museum and Art Gallery, Perth," B. H. Woodward, F.G.S.

"The need for a faunistic museum for the North of Scotland," by Professor J. Arthur Thomson, M.A., F.R.S.E.

"Neglect of opportunities," by S. S. Buckman.

11 A.M. Business Meeting (Election of Officers, &c.)

Dr. Bather proposed the following alteration of rules :—

Rule 1. Omit the words "engaged in scientific work or."

Rule 3. Omit the words "individuals interested in scientific work," and insert "other individuals."

Rule 3. To read "associates on payment of not less than 10/6 annually."

The meetings were held in the Council Chamber, in the Town Hall, by kind permission of the Town Council.

12.20 P.M. Excursion to Balmoral, with luncheon at Ballater.

## FRIDAY, JULY 17TH.

Visit to Dundee to inspect the Albert Institute (Free Libraries, Museum, and Art Galleries). Luncheon, by kind invitation of Mr. John MacLauchlan. Afterwards, the Camperdown Jute Works of Messrs. Cox Bros., Lochee, were visited by special permission, and there was a drive through Balgay Park on the return journey, followed by tea in the Royal Hotel.

The members of the Association were greatly indebted to Mr. John MacLauchlan for the excellent arrangements he made for their visit to Dundee, and for the generous hospitality to which they were treated.

# BUSINESS MEETING, JULY 16, 1902, ABERDEEN.

The annual report was read by the Secretary, and unanimously adopted.

The Treasurer submitted his report for the year ending June 30, 1903, and it was adopted on the motion of the President, seconded by C. Madeley.

Resolved that the Executive Committee be authorised to invest one hundred pounds of the surplus funds of the Association in such securities as they consider desirable.

Proposed by JAMES PATON.

Seconded by T. SHEPPARD.

Resolved that the sum of twenty-five pounds be granted to the Secretary and Editor for assistance.

Proposed by the PRESIDENT.

Seconded by H. M. PLATNAUER.

Resolved that Mr. F. Grant Ogilvie, M.A., B.Sc., be elected an honorary member of the Association.

Proposed by JAMES PATON.

Seconded by W. H. EDWARDS.

The following letter from the Board of Education was read and ordered to be entered on the minutes :—

Board of Education,

South Kensington, London, S.W.

25th June, 1903

Sir,

With reference to your letter of the 2nd instant, I am directed to state that Mr. W. W. Watts, the officer in charge of the circulation division of the Victoria and Albert Museum, will attend the Conference of the Museums Association to be held in Aberdeen in July next.

I am, Sir,

Your obedient Servant,

GILBERT R. REDGRAVE.

The President announced that the council had accepted the invitation of Norwich to meet there in 1904.

Resolved, that Sidney F. Harmer, D.Sc., F.R.S., Superintendent of University Museum of Zoology, Cambridge, be elected President for 1904.

Proposed by the PRESIDENT.

Seconded by PROF. J. W. CARR.

Resolved, that W. E. Hoyle, M.A., D.Sc.; and Prof. J. W. Carr, M.A., be elected Vice-Presidents; and that the Executive Committee be authorized to appoint other Vice-Presidents.

Proposed by the PRESIDENT.

Seconded by H. BOLTON.

Resolved, that Alderman W. H. Brittain be re-elected Treasurer.

Proposed by the PRESIDENT.

Seconded by ALD. J. S. TOOTHILL.

Resolved, that E. Howarth be re-elected Secretary and Editor.

Proposed by the PRESIDENT.

Seconded by BUTLER WOOD.

On the motion of the President, seconded by James Paton, the following were appointed members of the Council.

R. F. Martin (London).

William Bradshaw (Nottingham).

Henry Coates (Perth).

Charles Madeley (Warrington).

C. H. Hunt (Bootle).

Alderman J. S. Toothill (Bradford).

James Murray, D.L. (Aberdeen).

Butler Wood (Bradford).

E. M. Holmes (London).

J. Maclauchlan (Dundee).

H. M. Platnauer (York).

James Reeve (Norwich).

Resolved, that the Museums Association is of opinion that the privilege of using pure spirit, duty free, which has been accorded to Laboratories and Factories, should also be granted to Museums, it being well-known that pure spirit is much superior to methylated spirit for the preservation of specimens

Proposed by W. E. HOYLE.

Seconded by A. LANCASTER.

The following alterations of Rules, of which due notice had been given, were agreed to, on the motion of the President (Dr. F. A. Bather), seconded by James Paton.

Rule 1.—Omit the words "engaged in scientific work or."

Rule 3.—Omit the words "individuals interested in scientific work," and insert "other individuals."

Rule 3.—To read "associates on payment of not less than 10/6 annually."

A cordial vote of thanks was passed to the Lord Provost and City Council for the use of the Council Chamber, and for the generous hospitality which they had shown to the Association.

Thanks were also warmly accorded to Mr. James Murray, Chairman of the Art Gallery Committee, for the excellent arrangements made for the meeting, for the personal attention which he had given during the whole time the conference was proceeding, and for the very hearty hospitality he had shown throughout. Thanks were also voted to the local secretary.

# COUNCIL, 1903.

## PRESIDENT.

F. A. BATHER, M.A., D.Sc., F.G.S.

## PAST PRESIDENTS.

Alderman W. H. BRITAIN, J.P., F.R.G.S.

J. WILLIS CLARK, M.A.

Professor W. BOYD DAWKINS, M.A., D.Sc., F.R.S.

Alderman A. J. HAWKES.

Professor E. RAY LANKESTER, LL.D., F.R.S.

Rev. Canon NORMAN, M.A., D.C.L., F.R.S.

JAMES PATON, F.L.S.

Councillor W. E. B. PRIESTLEY, J.P.

Sir WILLIAM TURNER, K.C.B., D.Sc., D.C.L., LL.D., F.R.S

HENRY WOODWARD, LL.D., F.R.S.

## TREASURER.

Alderman W. H. BRITAIN, J.P., F.R.G.S. (Sheffield).

## VICE-PRESIDENTS.

Lord Provost WALKER, Lord Lieutenant.

The Very Rev. THE PRINCIPAL OF THE UNIVERSITY OF ABERDEEN.

JAMES MURRAY, D.L.

JOHN DOVE WILSON, LL.D.

Professor W. M. RAMSAY, D.C.L., LL.D.

Professor J. W. H. TRAIL, M.A., F.R.S.

Professor J. A. THOMSON, M.A.

JOHN MACLAUCHLAN.

\*H. M. PLATNAUER, B.Sc.

## COUNCIL.

### *Elected 1898.*

\*W. E. HOYLE, M.A. (Manchester).

WILLIAM BRADSHAW (Nottingham).

HENRY COATES (Perth).

### *Elected 1900.*

W. H. EDWARDS (Worcester).

Professor J. W. CARR M.A. (Nottingham).

R. F. MARTIN (London).

### *Elected 1902.*

BUTLER WOOD (Bradford).

\*CHARLES MADELEY (Warrington).

C. H. HUNT (Bootle).

Alderman J. S. TOOTHILL (Bradford).

### *Elected 1901.*

F. GRANT OGILVIE, M.A., B.Sc.

JAMES MURRAY, D.L. (Aberdeen).

\* Members of the Executive Committee.

## GENERAL SECRETARY AND EDITOR.

E. HOWARTH, F.R.A.S., F.Z.S. (Museum and Mappin Art Gallery, Sheffield).

## LOCAL SECRETARY.

ALEX. EMSLIE SMITH, Jr., M.A., Advocate, 130, Union Street, Aberdeen.



## MUSEUMS ASSOCIATION RULES.

AS AMENDED AND ADOPTED AT THE ABERDEEN MEETING, 1903.

1.—That this Association be called the "MUSEUMS ASSOCIATION," and shall consist of representatives of Museums, of other persons interested in Museums, who may be admitted as Associates, and of Honorary Members. The number of Honorary Members shall not exceed fifteen; they shall be distinguished either for success in Museum work, or for services to the Association; they shall be nominated by the Council, and elected by the Association.

2.—The object of the Association shall be the promotion of better and more systematic working of Museums. In order to promote a better knowledge of Museums, the Association shall meet in a different town each succeeding year.

3.—That each Museum contributing not less than one guinea a year be a Member of the Association, and that other individuals be admitted as Associates on payment of not less than 10s. 6d. annually.

4.—That each Museum be represented by three delegates, each having a vote. Each Associate to have one vote.

5.—That each Museum belonging to the Association and each Associate receive one copy of the publications of the Association.

6.—That the affairs of the Association be managed by a Council consisting of a President, Vice-Presidents, one or two Secretaries, or a Secretary and Editors, a Treasurer, and twelve ordinary Members; three to constitute a quorum; all past Presidents to be *ex-officio* Members of Council. The President, Vice-Presidents, and four ordinary Members of Council to retire each year, and to be ineligible for re-election for one year.

7.—The Council to be elected at the Annual General Meeting, and to hold office for one year. The Council shall have power to fill any vacancies that may occur in its ranks between Annual Meetings. At each Annual Meeting the Council shall, as soon as possible, post in a conspicuous place in the Reception Room a list of the names of those persons nominated by it to fill vacancies in the Council and Officers.

8.—That a General Meeting of the Association be held annually, for the transaction of business, the reading of papers, and the discussion of matters relating to Museums.

9.—The place and time of the Annual Meeting to be determined by the Council.

10.—That an Executive Committee, consisting of the President, Secretaries (or Secretary and Editor), Treasurer, and two other members of the Council, shall each year be appointed by the Council to deal with any matters that may arise between the Annual Meetings; and that the railway fares of members of the Executive Committee attending meetings be paid out of the funds of the Association—the meetings to be called on the responsibility of the President and Secretaries.

11.—All new rules, and all resolutions affecting existing ones, to be submitted to the Annual General Meeting. One calendar month's notice to be given of all resolutions affecting the rules.

## Members.

The Names of Curators who attended the Aberdeen Conference  
are printed in *Italics*.

Date of Entry.	MUSEUM	CURATOR	DELEGATES
1893	Australian (Sydney) ....	R. Etheridge, jun....	
1901	Adelaide (South Australia)	Prof. E. C. Stirling ..	
1894	Baroda State Mus.....	Prof. A. M. Masani, M.A., B.Sc .....	
1890	Blackburn.....	R. Ashton .....	
1889	Bolton .....	W. W. Midgley.....	Ald. Brooks
1890	Bootle .....	<i>Chas. H. Hunt</i> .....	Coun. Whitehead
1902	Boston Mus. of Fine Arts, Massachusetts .....	B. Ives Gilman ....	
1889	Bradford .....	<i>Butler Wood</i> .....	Ald. J. G. Toothill
1893	Brighton .....	<i>John Minto, M.A.</i> ..	
1889	Bristol .....	<i>H. Bolton, F.R.S.E.</i> ..	
1898	Canterbury .....	F. Bennett Goldney ..	
1890	Cardiff .....	John Ward, F.S.A. ....	
1897	Carnegie Mus., Pittsburgh Pa.....	W. J. Holland, Ph.D., LL.D.....	
1892	Chester (Grosvenor Mus.)	R. Newstead .....	
1897	Colombo .....	Dr. A. Willey .....	
1893	Deseret Museum, Salt Lake City, Utah .....	Dr. Jas. E. Talmage, F.R.S.E., F.G.S. ....	
1893	Dorset, Rousden Observa- tory, Lyme Regis. ....	C. Graver .....	
1902	Dresden, R. Zool. Anthr. and Ethn. Mus.....	Dr. A. B. Meyer ....	
1891	Dundee.....	<i>J. MacLachlan</i> .....	
1901	Field Columbian Mus., Chicago .....	Dr. F. J. V. Skiff ....	
1890	Glasgow .....	<i>Jas. Paton, F.L.S.</i> ....	Coun. Jos. Burgess
1901	Grimsby Naturalists' Soc.	Arthur Smith .....	
1895	Hancock Museum, New- castle-on-Tyne .....	<i>E. L. Gill, B.Sc.</i> ..	
1902	Hanley, Staffordshire ..	F. Staley .....	
1901	Harris Museum, Preston	W. B. Barton .....	
1890	Hereford .....	J. Cockcroft .....	
1893	Horniman Mus., Forrest Hill, London, S.E. ....	R. Quick.....	
1901	Hull .....	<i>T. Sheppard, F.G.S.</i> ..	
1890	Liverpool .....	H. O. Forbes, LL.D.	
1890	Manchester, Owens College .....	<i>W. E. Hoyle, M.A.</i> ..	
1890	Manchester, Queen's Park	C. G. Virgo .....	
1890	Maidstone.....	J. H. Allchin.....	
1893	Middlesbrough .....	T. J. George .....	
1890	Northampton .....	<i>J. W. Carr, M.A.</i> ....	Mrs. Carr
1890	Nottingham .....	James Reeve .....	
1900	Norwich .....		

Date of Entry.	MUSEUM	CURATOR	DELEGATES
1893	Parkes Mus. of Sanitary Institute, Margaret St., London .....	W. H. Knight .....	
1893	Pharmaceutical Society, 17, Bloomsbury Square, London, W.C. ....	E. M. Holmes, F.L.S.	
1895	Perth .....	A. M. Rodger .....	Henry Coates
1897	Perth, Western Australia:	Bernard H. Woodward, F.G.S. ....	
1902	Plymouth .....	E. E. Lowe, F.L.S. ..	
1890	Ruskin Museum, Sheffield	Gill Parker .....	
1899	St. Helens, Lanc., Gamble Institute .....	Alfred Lancaster .....	
1890	Saffron Walden .....	G. N. Maynard .....	
1890	Salford .....	B. H. Mullen, M.A. ...	
1889	Sheffield, Public Museum	E. Howarth, F.R.A.S., F.Z.S. ....	Ald. W. H. Brittain, J. P. F.R.G.S.; Coun. J. A. Watson.
1902	Smithsonian Institution, Washington .....	S. P. Langley .....	
1895	S. African Mus., Capetown	W. L. Sclater .....	
1890	Stockport .....	E. Hewitt .....	
1890	Sunderland .....	J. M. E. Bowley .....	
1902	Torquay Natural His. Soc.	Alex. Somervaille ....	Mrs. C. E. Pearce
1890	Warrington .....	C. Madeley .....	
1896	Winchester College Nat. Hist. Soc. ....	C. Griffith .....	
1890	Worcester .....	W. H. Edwards .....	
1890	York .....	H. M. Platnauer, B.Sc.	

## ASSOCIATES.

The names of those present at the Aberdeen Conference are printed in italics.

Date of Entry.	
1903	<i>Aberdeen, Lord Provost.</i>
1901	Aitken, Mrs. G. B., 38, Garscube Terrace, Edinburgh.
1903	<i>Anderson, P. J., LL.B., Aberdeen.</i>
1893	Anderson, Prof. W. C. F., M.A., University College, Sheffield.
1902	Baker, Frank C., Academy of Sciences, Chicago, Illinois, U.S.A.
1898	Balfour Henry, M.A., Pitt-Rivers Museum, Oxford.
1902	Barracrough, Wm., Rothsay Villa, Victoria Street, Barnsley.
1890	<i>Bather, F. A., M.A., D.Sc., British Museum (Nat. Hist.), London.</i>
1903	<i>Bather, Mrs. F. A., 29, The Terrace, Barnes, Surrey.</i>
1901	Benham, W. B., M.A., D.Sc., Otago University Museum, Dunedin, New Zealand.
1902	Boulsover, William, Ferndale, Bakewell, Derbyshire.
1895	Brunchorst, Dr. J., Bergens Museum, Bergen.
1900	Buddicom, Robert A., B.A., F.G.S., Ticklerton Court, Church Stretton, Shropshire.

- 1900 Bullen, Rev. R. Ashington, B.A., F.G.S., Pyrford Vicarage, Woking, Surrey.
- 1901 Carmichael, Sir Thos. D. Gibson, Castlecraig, Dolphinton, N.B.
- 1899 Carpenter, Geo. H., B.Sc., Museum of Science and Art, Dublin.
- 1893 Cheeseman, T. F., Auckland Museum, New Zealand.
- 1897 Crake, William V., B.A., Museum, Hastings.
- 1898 Dawes, G. H., 254, St. Philip's Road, Sheffield.
- 1893 Denny, Prof. Alfred, F.L.S., University College, Sheffield.
- 1901 Dixon, R. M., Victoria and Albert Museum, Bombay.
- 1892 Donner, E., Oak Mount, Fallowfield, Manchester.
- 1892 Donner, Mrs. E., Oak Mount, Fallowfield, Manchester.
- 1900 Dorsey, Dr. George A., Curator, Department of Anthropology, Field Columbian Museum, Chicago, Ill., U.S.A.
- 1903 Draper, Miss Miriam S., Children's Museum, Brooklyn, New York.
- 1901 Drew, S. H., F.L.S., Public Museum, Wanganui, New Zealand.
- 1901 Dunsmore, Dr. James, 53, Queen Street, Edinburgh.
- 1902 Fawcett, John E., Low Royd, Apperley Bridge, near Bradford.
- 1901 Ferguson, H. S., F.L.S., Government Museum and Public Gardens, Trivandrum, Travancore, India.
- 1903 Frauberger, Dr., Kunstgewerbe Museum, Düsseldorf.
- 1901 Giglioli, Prof. Dr. Enrico, R. Museo Zoologica, 19, Via Romano, Florence.
- 1902 Gilman, B. I., Museum of Fine Arts, Boston, Mass., U.S.A.
- 1902 Godwin, J. A., Clock House, Bradford.
- 1898 Goldney, F. Bennett, Goodnestone Park, Dover.
- 1901 Goodchild, J. G., Museum of Science and Art, Edinburgh.
- 1898 Gould, I. Chalkley, Traps Hill House, Loughton, Essex.
- 1892 Greening, Linnæus, Grappenhall, near Warrington.
- 1897 Hall, Miss Kate M., Curator, Museum, Stepney, London.
- 1902 Hazelius, Dr., Gunna, Skansen, Stockholm.
- 1895 Henshaw, Samuel, Museum of Comparative Zoology, Cambridge, Mass., U.S.A.
- 1897 Hodgson, T. V., 17, Collings Park, Plymouth.
- 1903 Holmes, Mrs. E. M., London.
- 1901 Hovey, E. O., A.B. PH.D., F.G.S.A., Geological Dept., American Museum Nat. Hist., New York.
- 1903 Hoyle, Mrs. W. E., Manchester.
- 1890 Hughes, Prof. T. McKenny, Woodwardian Museum, Cambridge.
- 1897 Hutchinson, Jonathan, 1, Park Crescent, London, N.W.
- 1903 Hutchinson, Miss S. A., Brooklyn Institute of Arts and Science, Brooklyn, New York.
- 1893 Hutton, Capt. F. W., Canterbury Museum, Christchurch, New Zealand.
- 1901 Ihering, Dr. H. von, Museu Paulista, Sao Paulo, Brazil.
- 1900 Irving, John, 23, Bennett Park, Blackheath, London, S.E.
- 1895 Jackson, Dr. Robt. T., Geological Dept., Harvard University, Cambridge, Mass., U.S.A.

- 1903 *Karlin, G. Johanson*, Museum, Lund, Sweden.  
 1901 *Levander, Dr. K. M.*, Helsingfors, Finland.  
 1903 *Lehmann, Dr. O.*, Altona Museum.  
 1893 *Longfield, T. H.*, F.S.A., Science and Art Museum, Dublin.  
 1895 *Lucas, F. A.*, Dept. of Comparative Anatomy, U.S. National Museum.  
 1902 *Maitland, A. Gibb, F.G.S.*, Government Geologist, W. Australian Museum, Perth, W.A.  
 1894 *R. F. Martin*, Ashton, Muswell Avenue, Muswell Hill, London N.  
 1903 *Mrs. R. F. Martin*, do. do. do.  
 1902 *Martin, N. H.*, Ravenswood, Low Fell, Gateshead.  
 1898 *Mason, Thos.*, Free Library, St. Martin's, London, W.C.  
 1890 *Monks, F. W.*, 3, Winmarleigh Street, Warrington.  
 1900 *Morgan, John*, 18, The Steyne, Worthing.  
 1902 *Muff, Mrs. Henry*, The Red House, Bexley Heath, Kent.  
 1903 *Murray, Jas.*, D.L., Glenburnie Park, Aberdeen.  
 „ *Murray, Mrs. Jas.*, do. do.  
 1902 *Naylor, E.*, Heather Bank, Hazelhurst Road, Bradford.  
 1897 *Newton, E. T.*, F.R.S., Geological Survey, 28, Jermyn Street, London, W.  
 1901 *Newton, R. Bullen, F.G.S.*, British Museum (Natural History), London.  
 1901 *Ogilvie, Prof. Grant, M.A.*, B.Sc., Board of Education, London.  
 1902 *Para, Brazil*, Director of Museo Goeldi.  
 1898 *Parkin, Wm.*, The Mount, Glossop Road, Sheffield.  
 1902 *Pawson, Thos.*, 16, Chester Street, Horton Lane, Bradford.  
 1901 *Penrose, Geo.*, Museum, Truro, Cornwall.  
 1897 *Petrie, Prof. W. Flinders, LL.D.*, D.C.L., F.R.S., University College, Gower Street, London, W.  
 1890 *Phipson, Miss Emma*, Park Villas, Bell Street, Reigate.  
 1901 *Plunkett, Count*, Kilternan Abbey, Co. Dublin.  
 1902 *Priestley, W. E. B.*, 65, Vicar Lane, Bradford.  
 1903 *Pycraft, W. P.*, A.L.S., M.B.O.U., British Museum (Nat. Hist.), London.  
 1900 *Rudler, F. W.*, F.G.S., Museum of Practical Geology, 28, Jermyn Street, London, W.  
 1903 *Ramsay, Prof. W. M.*, D.C.L., LL.D., Aberdeen.  
 1900 *Reeve, Jas.*, Castle Museum, Norwich.  
 1890 *Scharff, Dr. R. F.*, Museum of Science and Art, Dublin.  
 1897 *Sclater, P. L.*, Ph.D., F.R.S., Zoological Society, Hanover Square, London, W.  
 1901 *Skiff, Dr. F. J. V.*, Field Columbian Museum, Chicago, U.S.A.  
 1903 *Smith, A. Emslie, Junr.*, M.A., 130, Union Street, Aberdeen.  
 1902 *Smith, Geo. H.*, Cortland Science Club, Cortland, N.Y.  
 1901 *Smith, G. Jackson*, Hazelwood, Ranmoor, Sheffield.  
 1896 *Smith, Harlan I.*, American Museum of Natural History, Central Park, New York.

- 1899 Sorby, H. C., LL.D., F.R.S., Broomfield, Sheffield.  
 1898 Stokes, John, M.D., 82, Ecclesall Road, Sheffield.  
 1902 Swanton, E. W., Educational Museum, Haslemere, Surrey.  
 1903 *Thiis, Dr. J ns*, Nordenfjeldske Kunstindustri Museum, Tr ndhjem.  
 1903 *Thomson, Professor J. A*, M.A., Aberdeen.  
 1896 *Trail, Professor, J. H. W.*, M.A., F.R.S., University Library, Aberdeen.  
 1901 *Traquair, Dr. R. H.*, F.R.S., Museum of Science and Art, Edinburgh.  
 1901 Turner, Sir William, K.C.B., 6, Eton Terrace, Edinburgh.  
 1901 Vallance, D. J., Museum of Science and Art, Edinburgh.  
 1899 Veitch, W. Y., F.G.S., Museum, Middlesborough.  
 1901 Vis, C. W. de, Queensland Museum, Brisbane.  
 1903 Ward, Henry L., Public Museum, Milwaukee, Wisconsin.  
 1903 *Watts, William W.*, F.S.A., Official Representative, Board of Education, South Kensington, London.  
 1900 Webster, W. D., Home Court, 24, Palace Road, Streatham Hill, London.  
 1901 Welch, C., Guildhall Library, London, E.C.  
 1903 *White, J. F.*, LL.D., Seaton Cottage, Bridge of Don, Aberdeen.  
 1897 White, Thos., 57, Highbury Hill, London, N.  
 1891 Woodward, A. Smith, LL.D., F.R.S., British Museum (Natural History), London.  
 1901 Woodward, Bernard H., Museum and Art Gallery, Perth, West Australia.  
 1897 Woodward, Dr. Henry, F.R.S., British Museum (Natural History), London.  
 1895 Woolnough, Frank, Museum, Ipswich.  
 1902 *Wray, L.*, (Perak Museum), 56, Hillfield Road, West Hampstead, London.  
 1902 Wright, Arthur G., Corporation Museum, Colchester.  
 1892 Yates, Geo. C., F.S.A., Hon. Sec., Lanc. & Cheshire Antiquarian Society, Swinton, nr. Manchester.

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### HONORARY MEMBERS.

- Sir E. Maunde Thompson, K.C.B., D.C.L., LL.D., Principal Librarian, British Museum, London.  
 Sir William de W. Abney, K.C.B., D.C.L., F.R.S., Victoria and Albert Museum, London.  
 Sir Thos. D. Gibson-Carmichael, Bart., Castlecraig, Dolphinton, N.B.  
 Dr. A. B. Meyer, Museum, Dresden.  
 S. P. Langley, Smithsonian Institution, Washington, U.S.A.  
 F. Grant Ogilvie, M.A., B.Sc., Board of Education, South Kensington, London.

## BALANCE SHEET, 1902-3.

[illegible]

## Aberdeen Art Gallery and Museum.

BY JAMES MURRAY, D.L.

Chairman, Art Gallery Committee, Aberdeen.

[Read at the Aberdeen Conference, 1903].

IN according the members of the Museums Association a hearty welcome to Aberdeen, it may not be uninteresting to tell them something of the history of the art movement in this city, and the reasons which led to the founding of a museum and art gallery.

I need hardly remind members of this Association that Aberdeen has been for some centuries intimately connected with art, for it is probably well known to them that George Jamesone was born here in 1588; he was a pupil of Rubens, and not unworthy of that great master, and several of his paintings are to be seen in the university. Even if it cannot be said that Scottish painting began in Aberdeen, there can be no doubt that Jamesone greatly influenced it and may be fairly called the father of Scottish art. Then in the 19th century we had John Phillip, R.A.—Spanish Phillip—one of the greatest masters of colour that Scotland has ever produced; William Dyce, R.A., and James Cassie, are able men of the past, connected with this city. With such names as these to stimulate interest, it is easy to trace how the citizens had from early times a desire to see and to admire works of art by men living in distant places; and hence we find that in November, 1827, a few artists, resident in Aberdeen, resolved to associate themselves for the purpose of “mutual improvement in painting, and the furtherance of the art generally.” An “Artists’ Society” was formed, consisting of ten artists, and two honorary members; their first exhibition being opened in August, 1828. Entirely destitute of funds, excepting their own contributions, which had to meet the necessary expenses of accommodation, the members had to rely for an exhibition solely on their own exertions, with those of resident amateurs, and the unsolicited contributions of artists in other places. Attempts had been made some years before to establish an annual exhibition of works of art in Aberdeen; but, from



various unfavourable circumstances, and the want of funds to bring forward the productions of distant artists, at a period when there were no railways, the design was dropped.

The institution of the Artists' Society, however, was the first attempt at combining and concentrating the efforts of native talent and taste. The failure of the exhibitions held previous to 1828, operated no doubt considerably against their endeavours to re-establish an annual exhibition; and their determination to make no appeal to the public until the experiment should be fairly tried, necessarily precluded the possibility of their availing themselves of the assistance of artists in other places.

The first exhibition contained upwards of two hundred and forty works, obtained almost entirely from Aberdeen residents. The encouragement and approbation bestowed on it was such as to assure the Society that its efforts were appreciated; and by means of the exhibition a small fund was placed at their disposal. The Society's second exhibition, which was opened in September, 1829, was superior to its predecessor in point of numbers, as well as in talent, although from the unfavourable season, and other circumstances, the proceeds added but little to the funds of the Society. The approbation and encouragement that had been bestowed on their efforts, and the expression of public opinion were such as to assure them that something permanent and regular might now be contemplated, and certain rules and regulations were drawn up for the formation of a permanent Society. One of these rules is somewhat quaint, enjoining "that members shall be men of fair moral character, of high reputation in their profession," but this rule was afterwards cancelled. Numerous exhibitions were subsequently held, the Society was remodelled, and new rules adopted in 1885, A. D. Reid, Esq. (A.R.S.A.) being elected Chairman.

In 1881, it was felt that such a city as this should possess some special building in which exhibitions could be held and in which a permanent collection of pictures and art objects could be acquired and exhibited, consequently, a public meeting to promote the Art Gallery was held on 3rd February, 1882, Lord Provost Esslemont presiding, and a committee

was formed to raise funds; the gallery was opened in March, 1884, with an exhibition illustrative of industry and art. The building cost £7,170, the site £3,250, the total primary cost being £11,000, made up by subscriptions from the city council, private subscribers and patrons, and friends of artists; the Artists' Society itself contributing £287, a recent addition to provide room for the "Macdonald collection" costing £2,100. In 1885 the Artists' Society held its first exhibition in the art gallery, and has, since 1891, held biennial exhibitions, which have been so successful that it has at present money invested. It will thus be seen that the art gallery and the Artists' Society have since 1884 been working amicably together for the furtherance of art in Aberdeen; and it is my most cordial wish that we may in the future as in the past still work together for the greater benefit and furtherance of art education in this part of Scotland.

The art gallery and museum at present consist of two top-lighted galleries, a large hall, 62 feet long by 42 feet wide with two small rooms on either side, 42 feet by 28 feet, and two others in the front which can be thrown into the central hall, or boarded up and used as separate galleries when necessary. Ascending the staircase from the entrance there is on either side a gallery 42 feet by 28 feet. One is filled with engravings, water-colours, and some of the smaller framed material belonging to the museum, the other gallery is entirely filled with pictures bequeathed to us by the late Alexander Macdonald, of Keppleston. As an addition to this gallery, is an alcove around which are placed portraits of eminent artists, painted either by themselves or by their friends for Mr. and Mrs. Macdonald, a collection which I believe to be absolutely unique in this country. Of the pictures which were bequeathed to us, we have some very fine early examples of such men as Millais, Orchardson, Pettie, Cameron, Sir G. Reid, Watts, Hook, S. Reid, Alma Tadema, Macbeth, John Phillip, James Cassie, Etty, Josef Israels, and several others. Many of these paintings are exceedingly interesting, being examples which are rarely met with at the present time. A citizen of Aberdeen, in order to help forward the art movement, offered to give a picture of the value of £500 on

condition that the corporation granted £1500 to buy pictures during a period of six years ; the offer was accepted, and we are now adding to our permanent collection of pictures, which are exhibited upon the walls of the large hall, where the floor-space leaves ample room for the exhibition of other objects. At various periods special exhibitions have been held. At the present time we have a few cases of objects on view, the chief being those showing the manufacture of paper, combs and horn material, cotton and cotton spinning, together with those lent from the Victoria and Albert museum, a collection which this year has been made upon lines suitable to the great granite industry of this city. We do not possess many objects of industrial art, the most interesting probably being the cups and covers bequeathed us by Francis Edmond, of Kingswells, probably German work of the seventeenth century, but upon this latter point, I hope to be enlightened by some of the experts on gold and silversmith's work, who are probably with us this morning.

Such is our present gallery and museum, one which has been carried on under difficulties of various kinds, not the least of them being the want of money.

We are now looking forward to a future when this gallery may become the centre of art education for the North of Scotland, a centre where students will be always welcomed, and where every endeavour will be made to assist them in their designs and studies, whether they are for the granite industry or for any other industry. Whether they are students from our own city or from the numerous towns and villages in this part of Scotland, I for one, do not believe in any short-sighted narrow policy, but in one of giving the greatest assistance to all. If in the past there may have been difficulties with respect to students working in these galleries, care will be taken that no such difficulties shall occur in the future, for it is to the student of to-day that we must look for the furtherance of our national prosperity, and, in a minor and local degree, to that of our own immediate industries.

In 1886, Mr. John Clark, formerly an advocate in this city, died and left the residue of his estate, on the decease of his wife, to trustees for the advancement of learning and education

in this city, specifying such institutions as the university, secondary schools, a public museum or art gallery as likely institutions to be aided. The residue amounted to between £18,000 and £19,000. Mrs. Clark survived her husband until 1901. She also left £5,000 or £6,000 and directed that her estate should be disposed of in the same manner as her husband's. The committee of the gallery approached the trustees and asked whether they could see their way towards making a grant to extend the building; they very kindly made a grant of £7,000, and the thanks of the citizens of Aberdeen are due to them for their large minded liberality in helping forward the art education of the city.

When you visit the gallery you will notice that it is built upon land facing the Robert Gordon College, and that between it and the college a large space is laid out as grass land and gardens. We have successfully endeavoured to obtain from the college authorities sufficient ground for the extension of the gallery. Some difficulties at first arose, but when it was clearly seen how great an educational centre this gallery was designed to be, how great an advantage it must be to the Grays School of Art, which it adjoins, and how important and useful it will be not only to their own Robert Gordon College, but to the whole city, the college authorities met our art gallery committee in a way which betokens a happy future for the museum and gallery, and granted us the portion of land, some 40 feet by 150 feet we asked for. I had the pleasure of meeting Sir George Reid in our galleries, and he very kindly suggested a plan for the future buildings. These plans and specifications have been got out by Mr Mackenzie, A.R.S.A., of this city, and we hope very shortly to commence building.

In a few words, we propose to retain our central hall, and build galleries above the side rooms, connecting these new rooms with the existing galleries occupied by the Macdonald bequest of pictures and those of our own. The galleries will be three in number, two of which will be about 42 feet by 28 feet and the third about 62 feet by 20 feet. In the central hall we propose to make as complete a collection as possible of plaster casts, of statuary of the Greek and Roman periods,

reproductions of the best ornament of the Italian Renaissance, and of the best French and English work ; in short, reproductions of all ornament which may be of use to our granite industry, in which 3,000 citizens are working at the present time. In connection with the architectural portions which may be exhibited, we hope to have photographs showing the position of the originals, if not models of some of the buildings.

Then again, Professor Ramsay is kindly continuing his researches in connection with the large carved stones which abound near the Moray Firth. Here we shall hope to follow in our Glasgow friend's footsteps and cast any that are worthy of a place in our gallery. More about this will appear in Professor Ramsay's paper, which will be published in the *Journal* in due course.

In another gallery we shall endeavour to obtain objects, originals and reproductions, to form an industrial art museum, where our art students may study and design from objects such as enamels, reproductions of gold and silversmiths' work, textile fabrics, embroideries, wood-carving, lettering, &c. We feel that in starting an industrial art museum, we must at first rely largely upon loans, and I am sure that especially in these sections we shall have the same assistance in the future from the authorities at South Kensington, as we have had in the past.

The Aberdeen Granite Association lend us a case of 31 specimens of granite, a section of the museum which I should like to see further developed, for it is both a technical and a trade section. It would be very useful if specimens of all kinds of granite in use and obtained within a given distance of Aberdeen were brought together, so that students of granite and persons interested in the trade could come to the gallery and inspect such materials.

Whilst having every sympathy with science and a science museum, I do not think it is desirable at present to attempt to add a science or natural history section to the museum, for our university is well supplied with such objects, and Aberdeen students can in almost all cases obtain permission to view and study in the university museums.

Such are our aims, such our ambitions, and from such a meeting as this, with gentlemen who have had the building up of museums, I feel that there are many here who can, if they will, assist us in our work, not only by suggestions and criticism, but by lending us of their numerous treasures when we ourselves are ready to open our new galleries.

#### DISCUSSION.

Dr. J. F. WHITE said he had very little to add to Mr. Murray's paper, which gave them a very comprehensive account of the history of art in Aberdeen. The only fault he found with the paper was that Mr. Murray had said so little about himself, for it was well-known to the citizens of Aberdeen that it was to the energy and enthusiasm of Mr. Murray that they were largely indebted for the present state of the art gallery. They now saw their way to go ahead. They had got the money, and now saw their way to carrying out the idea of the gallery being made a useful Fine Art Gallery. As one of those who had taken some interest in this undertaking, he had asked himself what steps they were to take to try and make the gallery useful, instructive, and a large feature in the culture of the community. He confessed — he said it frankly, that he had got great light from the chairman's address, so full of that delightful word, which he used so frequently—inspiration. He referred to two objects of such a museum as that—one, to give light, further light, to students and specialists; and in the second place, and perhaps more important, to try to bring down to the whole community some idea of what had been done in the history of the past in the fine arts, especially in the form of plastic art. As one of those who urged this very strongly, he confessed he saw somewhat of the difficulty, in wondering how the knowledge of the objects in the museum would reach the man in the street, who was now entirely unacquainted with them. Sculpture and casts had no colour, none of what were the ordinary attractions of a picture gallery, but there was surely to be found in the lessons handed down to us from the great masters of former days—the Greek, the Roman, the Renaissance—and onwards, stimulus which ought to be of the highest educational value. How they were to get that done was the question. There must be teaching, for in the British Museum and South Kensington he had often been struck by the fact that many of the great mass of visitors seemed to wander about with a sense of listless enjoyment but not much real or apparent attraction or love of the object. That seemed to

him a mistake, a very great mistake, which at all hazards and in all conditions of a museum must be got over. They would remember what Philip said to the Eunuch, "Understandest thou what thou redest," and the reply of the poor Eunuch—"How can I except some man guide me." Was not that what was needed in the present museums? They were not meant simply to be places of enlightened amusement, but of education. Carlyle very properly said that a great library was a university. If to that he had added a natural history museum, a picture gallery, and a museum of casts he would have reached, he (Dr. White) thought, absolute certainty as to what the highest education for a community should be. As he had said, they had received hints that day and he hoped they would be put into some practical form. Whether their curator should form peripatetic classes, or give lectures at certain times, or whether they should invite gentlemen from the south, from London, from the British Museum and South Kensington, to come and lecture, was a question which remained to be decided; but certain it was that something must be done to make sure that their museum was not to be looked upon as a delightful toy. He agreed very much with what the president had said about the necessity for a high standard, and that provincial museums must guard against the easy way of accepting gifts of pictures and other things without any value, things which would afterwards become a positive nuisance in the institution, destroying its value and lowering its standard. They all knew that one or two poor examples in a picture gallery destroyed the value of it and reduced its quality. These were the points which specially occurred to him with reference to Mr. Murray's paper. What they wanted to get from the members of the conference was ideas as to the best methods of carrying out this valuable educational institution which they proposed to have in Aberdeen. Since he was on his feet he also thanked the president for his admirable address, so full of instruction, so full of inspiration, so full of all that made a sense of the fine art valuable with reference to the whole community—not merely a luxury to the few, but an admirable means of elevating the people. There were numerous points on which questions might be raised. He was not quite sure that he would accept the definition of art as simply for beauty's sake. He thought that the early Italian painters, and certainly the early Flemish painters, aimed at something more. They aimed at spiritual instruction and sentiment. This must not be forgotten, and if the works were somewhat ugly at times, especially those of the early Flemish painters, they remained very valuable in the history of that art. He thought

it was wise to have a historical representation of the development of art in the early periods. It might possibly be ugly, but still it was full of meaning. If a museum was to be of great value educationally it must contain examples from the earliest times onwards, so as to put before the public a history of the progress of every art.

Mr. J. MACLAUCHLAN, Dundee, said he should like to express the very great pleasure with which he saw the Aberdeen art gallery, and the very beautiful, and in some respects unique, collection which it possessed. On previous visits to Aberdeen he had seen the library, the universities, and the cathedral, but he had never been fortunate enough to get into the art gallery until the other day. He had been long aware of the interest in art taken by Aberdonians, and the great contributions to Scottish art made by Aberdeen and her sons. As they were told on the previous day, Scottish art really began in Aberdeen, and nowhere else, relatively to the population—not even in Edinburgh or Glasgow—had it been so zealously maintained or so powerfully asserted as in Aberdeen. He therefore rejoiced at seeing the beautiful collection, and the really good galleries, although no doubt capable of improvement. He quite agreed with the president, although it was not always practicable, that pictures should not be hung close up to each other. When they went to Dundee on Friday they would perhaps say that he did not practice what he preached, but circumstances often compelled them to subordinate their desires, and do what the Royal Academy and other exhibitions did in hanging pictures closely together. At the same time he agreed that pictures should be hung with spaces between; and as to the colour of the walls, it should be selected so as not to take it out of the pictures, as unfortunately wall-colours often did.

Mr. JAMES PATON, Glasgow, said he only cursorily examined the plans, but it did not appear to him that they were in any way extravagant. What the people wanted was covered space. He did not know that too much care could be exercised against the wiles and devices of the architect, but it did not appear to him that any evil in that respect had been committed in Aberdeen, and it was not quite consistent with the character of the Aberdeen people that such an evil should be permitted here. The people here knew what they wanted, and they had a very good way of getting what they wanted. They had had previous experience, he understood, and were able, perhaps, to curb the architect. As to lighting, he did not know that people who simply took a cursory glance at the plans were in a position to say much about that, because the local conditions and neighbourhood of other buildings had to



be considered, and these questions were better known to, and better considered by, the architect who knew the surroundings. He thought there was a great deal of open space and very little wall space about the structure, but that was a thing that was easily overcome. If the openings were found to be detrimental, they could easily be filled up, and it was much easier filling up an opening than making one. He did not think either that there was any great harm in having the roof supported on piers as proposed. As to the sculpture court, it might be narrow, and probably the part under the balcony might turn out to be a little dark, but that he dared say was a thing that the architect himself might have considered. On the whole he thought there had not been much expenditure, and there appeared to be a great deal of covered space which could be utilised in many ways afterwards. They could also divide, and partition off the spaces in a way which would be suitable and preferable to having spaces broken in a structure. Upon the whole, he thought the Aberdeen people were going on quite safe lines in connection with their building.

Mr. HERBERT BOLTON, Bristol, said on looking over the plans of the buildings the first thing that struck him was the absence of an accessory staircase. The question came up in connection with his own place, and it was unanimously decided that it was absolutely necessary to have such a staircase. In case of a panic the ordinary staircase would get jammed, and the state of affairs might become hopeless. At the same time an accessory staircase was of the greatest possible value because it could be used by the workpeople, and as a passage for goods. Another matter was the absence of a curator's room. There was a room marked at the right hand corner in the front as for the caretaker, and it seemed a fairly large apartment. The curator's room should be so placed that people could not get at him at all times without previous warning to him. Another thing he noticed was the absence of cellars. There was a store-room marked on the plan at one end, but as far as he could make out its dimensions did not exceed 10 by 20 feet, which was too little. He should say that in a building as large as that it would prove an advantage in the long run to have cellars and store-rooms. He should also have liked to have seen where the heating apparatus was to be placed.

Mr. CHAS. MADELEY, Warrington, emphasised what had been said about having a basement for storage, and other purposes. On the occasion of an exhibition the want of convenient packing and unpacking rooms would probably necessitate the hiring of premises for the purpose. He thought that was a matter which could not be taken too seriously, and

for his own part he would willingly sacrifice for a time one or two of the exhibition rooms in order to secure a good basement for storage.

Mr. BUTLER WOOD, Bradford, said it struck him on looking over the building that there was scarcely enough storage and workroom accommodation. In his own building they had been sadly hampered by the want of rooms for these purposes, and had had to rent a room outside the premises in which to store boxes and a good many of the things they did not want to use at present. That was an important consideration in a new building. With regard to the sculpture court, when he was walking round it, the first feeling he had was that it was either too big or the objects not numerous enough. He had a feeling of bareness and a sort of incompleteness, a feeling that the place was hardly filled enough. Whether it was that the side rooms were not lighted sufficiently, or that the sculpture court was too well lighted he could not say, but certainly when he went out of the sculpture room into the side rooms it struck him that the latter were very dark. Still after he had been in the side room a little he did not feel that so much as when he went in at first. The question of lighting was a very important one; in fact, he should say that it was the most important thing in an art gallery. It was desirable that they should have not only a sufficient quantity of light, but that the light should be distributed in a proper way. His impression of the gallery here was that the light was not quite near enough to the pictures. He noticed that the ceiling was a square one, and that the lighting was simply derived from an opening in the square ceiling. To his mind the proper way to light a gallery was to have a curved sort of roof, that was, a curve from the sky-light gradually down to the wall. With a square arrangement like the present one the upper portion of the wall always seemed dark, but with a curved roof, if the ceiling was not too high, they got such a distribution of light as would give no shadows whatever—they had an equal distribution of light all over the room. The light should not be too strong, and in order to control this it was usual to put some sort of glass or curtain across the louvre.

Mr. E. HOWARTH, Sheffield, also spoke of the absolute necessity of storage accommodation for pictures or boxes. He did not quite understand the lighting arrangement here, as one had to study the site to realise that. As he understood they proposed to have in the sculpture court a top-skylight, and below that a flat counter-light. The idea was that with a counter-light they had a kind of screen to receive the light from the top, and then spread it evenly all over the room, but that did not quite work out in practice, because the light was

not even on all parts of the counter-light, and he found in his own experience that counter-lights caused such a confusing reflection from glass cases below it that objects in them could not comfortably be inspected. A great improvement was made by placing a linen blind below the counter-light. They must study the effect of counter-lights on the objects below them. A very important thing in relation to the light on pictures was the exact height at which the light came in. A private individual who kept pictures got the most out of them because he knew them and understood them. He did not deal with the man in the street, and had his own inspiration, and generally took care that his pictures were set off to the best advantage. In that way a great deal of information was derived from private galleries. The incidence of light into a picture room was a very important matter, and he thought they ought to carefully study the height of the skylight in relation to the floor, and the angle at which the light would fall on the pictures. On the upper floor they had no difficulty. It seemed to him a perfect plan for a picture gallery. His own feeling was that they could not see pictures properly except by a top light. In the upper galleries there, which he supposed would be devoted entirely to pictures, the arrangement was everything that could be desired. No matter who might be the individual who went there, if they were careful where their light was coming from, he ought to be able to see the pictures in the most admirable way. The arrangements also secured a good system of control. It was always important that the staff should be able conveniently to overlook the rooms as was done here. A question which was referred to by the president in his address was that of the colour of the walls. His opinion was that the colour of the wall in a picture gallery should never be seen. If they came away from a picture gallery without knowing what was the colour of the walls then he thought they had got a good colour. With regard to the curved sides of the ceiling, that certainly looked much nicer and in certain respects they might get better light, but that depended upon the angle and height of the roof. He thought it was in one of the Lancashire galleries that instead of having the light in the centre they had the light in the cove round the ceiling. The effect was not bad, but it was not altogether satisfactory. It seemed, however, to give a suggestion as to the method of lighting which, if carried out scientifically, might have a good result.

The President said Dr. THUIS had a convinced opinion which was exactly contrary to that of Mr. Howarth—namely, that they could not see pictures well except in a side

light, and that gentleman had given him particularly the instance of Rembrandt's Night Watch at Amsterdam which was formerly in a top light. The art congress met there four years ago and found that the side-light very greatly improved the appearance of the picture, making it quite remarkable. That was an impression he got himself from comparing a considerable number of top and side-lights.

Mr. JOHN MINTO, Brighton, said that in his place the light came in right round the four sides and they got an admirable top light in that way.

The PRESIDENT did not know whether the question of store-room or work-room was the most important, but he thought that a museum should not only be a place for exhibition but a place for investigation, for research, for work on the objects shown—a place for instruction, a place for the encouragement of anybody who worked upon these things. He was not now discussing the question of inspiration of the public, which he left on one side here. They were to have not only pictures but all manner of art objects; they wished to make the gallery a centre for all kinds of art that could possibly be of any profit whatever to the citizens. They would probably in the course of time accumulate a very valuable collection here, and it would be necessary for the students not only to see those things through the cases, but to handle them and examine their texture. They must have rooms in which these objects could be studied not only by students here but from other parts. It was absolutely necessary that they should have a store-room, because they would always be having things coming in which they did not want exactly to put on the walls or exhibit publicly, whatever their opinions might be. He was very glad to hear Mr. Paton's remarks as to the advisability of having plenty of open space, which they could subsequently divide up, because they would then have the advantage, to which he drew attention on the previous day, of having movable partitions which could be shifted about according as the objects changed. If they had temporary exhibitions, which he understood would certainly be the case in this gallery, they wanted to arrange each of them on a different plan, and it would be very advisable if the architect could construct brackets on the walls for stanchions, or sockets in the floor for pillars—by which the partitions could be arranged and altered in the same way as in the "Secession" at Vienna.

Mr. JAMES MURRAY of Glenburnie Park said he was glad to see present the city treasurer, and also Mr. Morgan, who had associated himself with the building committee. He thanked the members of the association for their kindly courtesy in giving them so much of their valuable time to

assist them with regard to their art gallery. They began to build this gallery 25 years ago, and he was sorry that this discussion had not taken place thirty years ago. He would wish them to bear in mind that all their visible means of support was £100 a year, and if they could show such results with the same money in any other gallery or museum in the country, he would travel on five minutes notice to see it. He hoped, however, that they were on the dawn of a new era of prosperity in regard to art in this city. One of the points raised was that of accommodation for storing cases. Although it was not on the plan (which was really meant to show the main gallery and additions along the west side of the gallery), they had got that, and that was also where the heating apparatus was placed. As to the accessory staircase he thought it was a very wise suggestion, because in case of a panic they would only have one outlet, and the people would be rushing all over the place. He thought they might call attention to that, and perhaps Mr. Morgan would take it up. As to the curator's room, they had not allowed themselves to think of such a gentleman as a curator being there, because they had not the means of supporting him. He thought, however, that the treasurer, Mr. Morgan, and the architect might keep the point in view. One gentleman remarked on the apparent poverty of the sculpture gallery. The remarks were made in a kindly spirit, and they appreciated them. He only wished all the members of the town council had been there to hear the remarks. By and bye they hoped to get the assistance of the corporation to a more practical extent than £100, and if the association came back in three years hence the people here would have a gallery they would not be ashamed of. Their hopes were strong in the direction of having a curator, and if they did have one it was essential that his room should be so placed that he would not be annoyed at any moment by Tom, Dick, or Harry coming in upon him. There was nothing more annoying to the manager of an establishment than being interrupted by calls of that kind. In regard to lighting from the roof or by means of side lights, he would ask Mr. Morgan to give them a few words upon that subject. The colour of the walls, which the president spoke of on the previous day, and to which the secretary had that day alluded was a point to be borne in mind because it was vital to the interests of the institution. He thanked the members for their kindly consideration of the whole subject.

Mr. JOHN MORGAN had no doubt the committee in charge of this matter would note the various points that had been raised in this discussion, and would give them due consideration. With regard to the extra staircase he did not know

that when that was suggested it was borne in mind that it was intended that the building should be mainly fireproof, the floor being of marble, and the roof of iron. That was a point to be considered before deciding upon means of escape. As to lighting that was a subject that had got a good deal of consideration and he had no doubt the committee would further consider it in the light of the criticism that had been passed that day. These, he thought, were the chief points that had been raised and it would take some time to digest the information that had been given.

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## Memorial to Sir William Flower.

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From *The Times*.

A BUST of the late Sir William Henry Flower, F.R.S., director of the natural history department of the British Museum, the work of Mr. Brock, R.A., was formally presented to the trustees of the British Museum by the Flower Memorial Committee, of which Lord Avebury is chairman, at the Natural History Museum, South Kensington, on Saturday, July 25; and the Archbishop of Canterbury, as the representative of the trustees, received and unveiled it. The ceremony took place in the central hall of the museum, in the presence of a large gathering. The Archbishop of Canterbury presided; and the other trustees present were the Duke of Northumberland, Lord Walsingham, Lord Peel, Lord Dillon, Lord Avebury, Mr. John Morley, M.P., Sir Mountstuart Grant Duff, Mr. F. D. Godman, Mr. George Cavendish-Bentinck, the Lord Chief Justice, the Master of the Rolls, Sir E. J. Poynter, president of the Royal Academy, and Captain Charles Morley Knight. The representatives of the late Sir W. Flower's family present were General Sir Henry and Lady Smyth, Lady Warrington Smyth, Mr. Arthur Flower (son), and Mr. Geoffrey Flower (grandson), and Miss Flower, Mrs. Shann, and Mrs. Hamlyn Price (daughters). Others present included Sir Joseph Fayrer, F.R.S., and other members of the memorial committee, Mr. Brock, R.A., Sir Edward Maunde Thompson, director of the British Museum, Professor Ray Lankester, F.R.S., director

of the natural history department of the museum, Professor Charles Stewart, F.R.S., Dr. P. L. Sclater, F.R.S., and Mr. C. E. Fagan, secretary of the museum. Lord Aberdeen wrote expressing regret at his inability to attend.

Professor RAY LANKESTER opened the proceedings with a few words, and introduced Lord Avebury, the chairman of the memorial committee.

Lord AVEBURY, in presenting the bust to the trustees and asking the Archbishop to unveil it, expressed the respect and admiration which he had always felt for the late Sir W. Flower, a naturalist of great eminence, who had rendered magnificent service to the museum.

Dr. SCLATER, speaking as an old and intimate friend of the late Sir W. Flower, gave a brief sketch of his career. He pointed out that he had held the office of president of the Zoological Society of London, and stated that when the directorship of the Natural History Museum became vacant in 1884, Sir W. Flower was selected *omnium consensu* as the fittest man for that important post. Virchow, of Berlin, was said to have designated him as the "prince of museum directors." The late director had filled three of the most exalted and conspicuous posts that a devotee of zoological science could expect to occupy, and had made his mark in all of them. After a tribute to Sir William Flower's personal qualities, Dr. Sclater pointed out that the volume on "Mammals, Living and Extinct," published in 1891, in which he had been assisted by Mr. Lydekker, was perhaps the best and most useful piece of literary work by which his name would be known hereafter. Amongst the mammals the whales had occupied Flower's chief attention, and no more appropriate position for the bust now offered to the trustees by 185 of his friends and admirers could be found than the whale room of the museum, which he had himself planned and fitted up, and which contained an unrivalled collection of these little-known animals.

The ARCHBISHOP of CANTERBURY said it was as a principal trustee of the British Museum that he was allowed the privilege of accepting on behalf of the museum, and of unveiling a memorial to one of the very best officers who in its long

history had ever served it. But it was as a close personal friend of the remarkable man whose bust he unveiled that he rejoiced specially in being fortunate enough to be the official recipient. It was about twenty years since he became a trustee of the British Museum, and from the day of his appointment up till the day of Sir William Flower's lamented death he had the honour of being numbered among his personal friends ; and he could speak of no man whom he had known as having possessed more markedly the characteristics which it seemed to him ought to attach to the holder of such an official position as that which he held. He possessed a combination of two qualities not always found together—one being an intense love of speaking about his own peculiar subject and its interests, and the other an absolute freedom from ever allowing that professional subject of conversation to verge in the slightest degree upon boredom. He had always associated together Sir William Flower and one who was a very intimate and honoured personal friend of his, Dean Stanley, as possessing in an almost unique degree the power of constantly talking about the subjects which interested them most and making those subjects interesting even to the most uninstructed person. In 1889, as president of the British Association, Professor Flower, as he then was, delivered an address, taking for his subject "Museums"; and in that address there were two or three passages which expressed so strikingly what his ideals were that he could not refrain from quoting them. He said :—"What a museum really depends upon for its success and usefulness is not its buildings, not its cases, not even its specimens, but its curator. He and his staff are the life and soul of the institution, upon whom its whole value depends. . . . A museum is like a living organism—it requires continual and tender care. It must grow. or it will perish ; and the cost and labour required to maintain it in a state of vitality is not yet by any means fully realised or provided for, either in our great national establishments or in our smaller local institutions. . . . A museum has been defined as a collection of instructive labels illustrated by well-selected specimens." It seemed to him that no man among the scientific men that he had known had done so



much as he to popularise in that particular way for un-instructed people, like himself, in scientific subjects the vast mass of material which was collected in buildings such as that, and to make available for the nation's good that which was the nation's property to start with. For those reasons he felt that they were doing nothing less than their obvious duty in commemorating for all time a man who did so much for a work which was being happily still carried on by those whom he had left to follow in his footsteps.

The bust was then unveiled. It is executed in Carrara marble, and represents the late Sir W. Flower wearing his various orders and decorations.

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## General Notes.

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### AT HOME.

BRITISH MUSEUM (NATURAL HISTORY).—Mr. W. R. Ogilvie-Grant of this museum has returned from a visit to the Azores, bringing with him a large collection of birds, insects, and land molluscs. Among the latter are some forms of special interest.

BRITISH MUSEUM (NATURAL HISTORY).—Notable among the attractions for visitors on the August Bank Holiday were some of the more important vertebrate remains recently collected in the Libyan desert, to the north of the Fayum district in Egypt, by Dr. C. W. Andrews, whose expedition was financed by Mr. W. E. de Winton. Chief among these is the magnificent skull of the strange quadruped, to which the first finder, Mr. Beadnell, gave the name *Arsinoitherium Zitteli*, in memory both of Arsinoë, a queen of the Fayum in the third century B.C., and of Prof. K. von Zittel, a pioneer of geological exploration in the Libyan desert. From a temporary label attached to the specimens, we learn that *Arsinoitherium* was a very large and heavily-built hoofed beast, in general appearance like a large Rhinoceros, though in no way related to that animal. The form of the bones of the feet and legs suggests that it was most nearly allied to the Elephants and to the Uintatheres—a group of large hoofed animals found in the Eocene beds of North America; but in the possession of a pair of great bony horns over the nose, together with a smaller pair over the eyes, and in the peculiar form of the teeth, *Arsinoitherium* stands quite apart from other mammals.

There are also exhibited the lower jaw of a species about one-third larger than that to which the skull belongs, and the lower jaw of a species of *Palæomastodon*, one of the ancestors of the Proboscidea discovered and described by Dr. Andrews. The specimens have been admirably prepared by Frank Barlow and Richard Hall, and we are glad to see their names mentioned on the labels.

**NATIONAL MUSEUMS AND FREE ENTRY**—The question of the copyists at the national galleries and museums in London, has been several times raised in connection with the larger subject of the "sixpenny day." The copyists are only in the rarest cases legitimate students. Most are either professionals who make their living by copying, or amateurs who find the national museums convenient places in which to idle away a day with palette and brush. The legitimate student who goes to look at and to study the pictures goes for choice on a public day, because only then can the canvasses be seen without obstruction. As to the charge for admission on certain days to the National Gallery, the National Portrait Gallery, the Victoria and Albert Museum, the Tate Gallery, and the Wallace Gallery, there can be no doubt that it should be abolished. Five years ago the Select Committee on the Museums of the Science and Art Department made a point of recommending "that admission to all the museums be always free," yet on three days a week sixpence is still demanded from every visitor to the Victoria and Albert Museum.

**GIFT TO THE NATIONAL GALLERY**.—Some years ago Sir William Agnew presented to the National Gallery Walker's picture "The Harbour of Refuge," by some authorities regarded as the young painter's masterpiece. The picture now hangs in the Tate Gallery on the Embankment, an institution that is virtually a branch of the National Gallery. Sir William Agnew has repeated this rare munificence by presenting the nation with another priceless treasure. It is Sir Joshua Reynolds' portrait of Mrs. Hartley and her child, known in the art world as "The Nymph and Young Bacchus." Mrs. Elizabeth Hartley was a beautiful and popular actress, who, a hundred and thirty years ago, flourished at the Haymarket and Covent Garden. Sir Edward Poynter, P.R.A., in acknowledging on behalf of the trustees of the National Gallery the splendid gift, writes: "I have often seen and admired it as one of Sir Joshua's finest works."

**GUILDHALL LIBRARY AND ART GALLERY**—The annual report of Mr. Charles Welch, the Guildhall librarian, states that 4,813 additions of manuscripts, printed books, pamphlets, maps, prints, &c., were made to the library last year, of which 3,300 were donations. The hour of closing the library had

been changed to eight o'clock on week days and to six o'clock on Saturdays. The time was not far off when the refurnishing of the library would demand serious consideration. The question of the water supply in case of fire was receiving every attention. At recent sales several volumes of scarce parish registers and family histories, and the remaining volumes of Gregory's MSS. collections for the "Lives of the Lord Mayors of London" were purchased. On the demolition of Newgate the museum received as gifts a whipping-post, four chairs from the chapel, iron manacles and waistbands for securing refractory prisoners, and a bust of Sir John Silvester, Recorder of London, 1803-22, who was known among the prisoners as "Black Jack of the Old Bailey." The inquiry into the rights and claims of the corporation in respect of the coronation of King Edward VII. occasioned an extensive use of the official records of former times and of the scarce and valuable illustrated books in which the library was so rich. The number of readers, &c., during the year had been 354,826. or a daily average of 1,478. The expenses of the library and museum amounted to £6,575. The art gallery, according to the director's report, was open 249 days, and attracted 220,872 visitors. Three paintings had been maliciously injured during the year, but since satisfactorily restored. During the year the city had also received the famous Gassiot collection of 127 pictures worth £90,000. The expenses of the art gallery had been £3,129.

**HULL SCHOOL CHILDREN AND THE MUSEUM.**—In view of the fact that the educational code now permits school children to visit the museum during school hours, when accompanied by their teachers, the curator of the Hull Museum prepared a syllabus of lectures, copies of which were distributed to the various schools in the city. The response has been most satisfactory, and during the past few months lectures have been delivered to 1,130 boys and 567 girls, the average attendance at each lecture being 50. To these children, 34 lectures have been delivered by the curator, on various subjects connected with their studies, the subjects being chosen by their head-teachers. The lecture usually lasts about half-an-hour, after which the children are conducted round the museum, and the more interesting objects explained to them. On their return to school, they are requested to write essays on the subjects they have had described to them, and the essays have shown that the scholars have taken the greatest possible interest in what has been said to them. Amongst the subjects chosen, the following have been the favourites:—History of Hull, Roman Britain, the Ancient Britons and their Implements, Coal, and Pre-historic Man. Other subjects upon

which lectures have been delivered are:—The Human Skeleton, The Ice Age, Mammals, Birds and Reptiles, Impressions of a first visit to a Museum, Insects, and the Study of Rocks.

WHITECHAPEL ART GALLERY.—The hoarding, it has often been said, is the poor man's picture gallery, and the authorities of this East End museum have therefore done well in arranging a most interesting exhibition of posters, selected of course for their artistic value. If, as we understand is the fond hope of some of its promoters, this display teaches the man in the street what he ought to admire, and consequently what alone he ought to look at among the multitude of modern advertisements, it should have considerable influence on the extension of art in advertising, which is a very different thing from the advertising art. The exhibition was opened on July 30th, by Mrs. Stuart Samuel. Among the artists represented may be mentioned Aubrey Beardsley, Dudley Hardy, J. Hassall, Cecil Aldin, W. S. Rogers, C. E. Dawson, Bernard Partridge, and the "Beggartaff Brothers" (Messrs. Jas. Pryde and Wm. Nicholson). Mr. Cheret naturally is well represented in the French section, while there are also designs by Austrian, Belgian, Dutch, German, Italian, and Spanish artists. Scandinavian art, as usual in this country is ignored; but so far as posters are concerned, this may be explained by the fact that, owing to the poverty and small population of those lands, the poster has not reached the same development as in the rest of Europe: advertisements are frequently in the form of specially painted canvasses. America and Japan are also conspicuous by their absence.

THE "DAILY CHRONICLE'S" EXHIBIT.—The cranium, part of the lower jaw, and other remains of a woolly rhinoceros (*R. tichorhinus*) were found towards the end of July, in the course of excavations at the printing office of the London *Daily Chronicle*, London. This enterprising paper lost no time in booming its find, and at the same time showed museum curators how to attract and interest the public. The bones, which are remarkably well preserved, were exhibited in the window of the publishing office on a specially made stand, each being labelled in plain language and large type. In the window above were fixed placards, headed in red letters, and giving in bold type an explanation of the find in all its bearings, from the pen of a well-known zoologist. Drawings, appropriately lettered, interpreted the various regions of the skull. Needless to say that, in these circumstances, the exhibit was not passed unnoticed. All day long the window was crowded with sight-seers, in some of whom, let us hope, an intelligent and abiding interest may have been awakened.

We cannot fail to reflect that, in a museum, surrounded as they would have been by hundreds of similar objects, and provided with a bald Latin label, these noteworthy specimens would probably not have excited the curiosity of one visitor in a thousand. However, we gather from the *Daily Chronicle* that the bones will probably find their way to the British (Natural History) Museum, and there, if anywhere, the authorities are likely to be alive to the lesson read them by Fleet Street.

PRESERVATION OF COLOUR IN ENTOMOLOGICAL SPECIMENS.—The paper read by Mr. E. M. Holmes before our meeting at Aberdeen, on the preservation of colour in plants, reminds us that last year Colonel J. G. Pilcher contributed to *The Entomologist*, a paper "on methods used to preserve colour in relaxing entomological specimens." In this case the discoloration appears to be due, not to an acid such as formic acid, but to the ammonia produced by decomposition; consequently this must be counteracted, not by an alkali, such as is employed by Mr. Holmes, but by an acid. After some experiments, "glacial acetic acid" says Col. Pilcher, "was found to answer best. I placed a small capsule or measure-glass of this acid in the relaxing box—60-90 drops as a charge—and renewed it as it evaporated, and this method I have used for many years. The relaxing box or vessel which appears to afford advantages above all others, is a glass cylinder, covered with a round disk of glass, ground to fit accurately. Into this cylinder is placed a tripod of glass, to hold the clock-glass upon which the specimens are to rest. Distilled water to the depth of half an inch is put into the cylinder, the latter is then placed over a Bunsen's burner, with wire gauze over it, and the water allowed to boil for five minutes or more. On allowing the vessel to cool, a partial vacuum is produced, and the cover must be removed with care some hours afterwards, when the specimens to be relaxed and the acetic acid are then inserted. The vessel cannot remain completely sterilized, because of the frequent movement of specimens to and from it, but heat can be applied from time to time, and it can be kept as free as possible from those spores which do germinate with marvellous rapidity in the saturated atmosphere of the relaxing box. The requisites for this relaxing chamber can be procured for a few shillings from Messrs. J. J. Griffin & Sons, 20, Sardinia Street, Lincoln's Inn Fields, W.C."

DOVER MUSEUM.—In the *Dover Standard*, there appeared last month a somewhat severe criticism of this museum, which in some measure is too much deserved. The members of the Museums Association who visited Dover in 1900, when the annual

conference was held in Canterbury, will remember how imperfectly the authorities seemed to realise what useful and valuable collections they had under their charge, for while the specimens were good and varied their display showed a lamentable lack of scientific knowledge and educational purpose. The critic in the *Dover Standard* puts this down to the absence of any qualified curator to deal with the collections, and it is almost inconceivable that a town of the immense importance of Dover, with visitors from all parts of the world, should be content to lag behind much smaller and less wealthy communities in the matter of its museum. Some extracts from the letter referred to will show the position of things at Dover :—

" Excepting a small gallery containing a fine series of the larger mammalia—for which the authorities are, in the main, indebted to the generosity of the Hon. Walter Rothschild—the exhibits are in a condition little short of chaotic. The appearance or air of absolute stagnation so painfully noticeable as one walks through the rooms is quite sufficient to deter the local people (as we heard on good authority) from taking much interest in the institution. One wonders what can be the aim and object of a museum in such a state. There are no popular labels, no maps, diagrams, or illustrations, and above all, no one at hand to impart instruction to those who may come in quest of it. Labels such as ' Lesser Fin Whale (*Balanoptera rostrata*),' are not likely to convey much information to the casual observer. Yet how many important biological lessons may be obtained from such a specimen, were it provided with an educational label. If a museum is not kept clean and bright, if the exhibits are not well-arranged and labelled, and if there are no diagrams, maps, and pictorial illustrations, how can the authorities expect it to become an educational centre. We have lately visited several of the Kentish museums, and always, excepting the Maidstone Museum, are led to believe that they put too much faith on voluntary assistance. Perhaps we may be pardoned for again quoting from Sir William Flower, ' Voluntary assistance is, no doubt, often valuable. There are many splendid examples of what it may do in country museums, but it can never be depended upon for any long continuance. Death or removals, flagging zeal, and other causes tell severely in the long run against this resource. A museum must have an endowment adequate to defray its expenses, and especially to ensure the staff of intelligent, educated, and paid curators required to maintain it in a state of efficiency. You might as well build a church and expect it to perform the duties required of it without a minister, or a school without a schoolmaster, or a garden without a gardener, as to build a museum and not provide a competent staff to take care of it.' From the *Directory of Museums* now published in the *Museums Journal* under Dover we gather that the income is derived from the rates, that there were 34,464 visitors in 1899 (how were these figures obtained? We saw no turnstiles), and that the income for working expenses for 1899-1900 was £144! Little wonder that the museum is in the condition it is, when less than £3 per week is doled out for the maintenance of an institution supposed to be responsible for the scientific culture of some 40,000 people. No one wishes to decry the value of the contents of the museum, a provincial museum could not wish for a finer collection in some branches. We saw but few bird's eggs, and these were placed—in direct contradiction to common sense—in the full light of a window. Everything is higgledy-piggledy. There is no stratigraphical arrangement of fossils, no classified

series of minerals, no orderly sequence of invertebrate forms, no historical and ethnological gallery. Yet the necessary objects or a clear exposition of geology, mineralogy, zoology, and history are there awaiting the guiding hand. It is to be hoped that the museum authorities will immediately take steps to restore order out of chaos."

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### ABROAD.

**MUSEUM OF NATURAL HISTORY, CONCEPCION, CHILI.**—The Minister of Public Instruction has founded a museum of natural history in the city of Concepcion, and has designated as its director Mr. Edwyn C. Reed, known for his scientific writings on Chilian subjects.

**MUNICIPAL MUSEUM, AMSTERDAM.**—During the end of July and first half of August, there was arranged here an exhibition of the work of Jan van Goyen, comprising about fifty paintings and sixty drawings by that artist.

**ALBANY MUSEUM, GRAHAMSTOWN.**—We are informed that this museum is starting a new publication entitled "Records of the Albany Museum," edited by the director, Dr. Schönland, who also contributes largely to the first number. When an example of the publication is sent to us we shall have more to say about it.

**PICTURE FRAUDS.**—The sale of pictures falsely attributed to artists of reputation goes on merrily. The Paris police courts have just had before them M. Elina (whose name appeared in the controversy as to the Saitapharnes tiara), M. Léon Vincent, Mme. Grault, and M. Dupeyron, all charged with being concerned in disposing of artistic fabrications. The defendants protested their good faith, with the exception of M. Dupeyron, who quietly remarked, "I signed these drawings with the name of Henri Pille just as I would have signed them with any other name." The defendants were all fined, in sums varying from 25 to 100 francs. These penalties do not appear to be very deterrent.

**THE BOGUS "TIARA."**—The celebrated "tiara" of the Louvre, Paris, is to be transferred to the Museum of Decorative Arts. M. Rachumowski's masterpiece of bogus antiquity will not be exposed in the modern section till some of the heat generated by the arguments respecting its origin has subsided.

**MUSEUM OF THE OPERA, PARIS.**—This museum, which was opened in June by M. Chaumié, Minister of Public Instruction, is an admirable collection arranged by M. Charles Malherbe, the architect, and virtually records the history of the National Academy of Music. The play-bills beginning with the production of Rameau's "Castor and Pollux," in 1779, are highly interesting. They include that of February

13, 1820, the night when Louvois assassinated the Duc de Berry. The specimens of the art of decoration cover several periods, the water-colours of Verdi's "Macbeth" by Alphonse de Neuville being triumphs of light and shade. The costumes show the great advance made in historical correctness. The presents of Marie Antoinette, some relics of Rossini, the rough models of former edifices which served as operas, an Orsini bomb, masks of the eighteenth century, and numerous portraits go to make up a highly attractive and original catalogue. The inaugural ceremony was followed by the unveiling of the statue of Charles Garnier, the architect of the present noble and ornate structure, at the opening of which in 1875 the Lord Mayor of London was present in state.

STATE UNIVERSITY MUSEUM AND LIBRARY, IOWA.—In order to relieve the present crowded condition of this institution, it is proposed to erect one wing of a large building that is to be ultimately used for museum purposes only, but which would at first accommodate the general library as well. The museum would, therefore, at once enter its permanent quarters so far as the space provided would permit.

NATIONAL ART GALLERY FOR AMERICA.—It is stated that Mr. Pierpont Morgan has offered his entire art collection, valued at six million dollars, for a proposed National Art Gallery, together with a sum of money sufficient to build a wing and house it. Should this offer be accepted and steps taken to make a proper use of it, the effect ought to be beneficial in many directions. It can scarcely be said that art finds its highest appreciation in America, nor does it follow that the wealthy citizens of that great country always possess that taste which makes their choice of works of art always acceptable. Mr. Morgan has made collections in all the domains of art, whether industrial, pictorial, plastic, archaic or modern, and many of the objects that he has acquired have been at various times and places exhibited in England. The inspection of them is apt to give rise to a feeling that they are somewhat "mixed," and that the judgment of their collector is not altogether reliable in an artistic sense. Still there is no doubt that Mr. Morgan has many valuable treasures which rank as true works of art, while others have important historical significance, so that if a wise discrimination is exercised in their acceptance the National Art Gallery of America will start its career well endowed with the elements of flourishing success, and ought to have the effect of educating both the authorities and the public to a more rational interpretation of the true cosmopolitan nature of art with all its humanising tendencies. At present it is there too much regarded as a tax raising luxury, and no national art gallery



is likely to become great either in art or its useful dissemination, with a government that levies an almost prohibitive duty on all works of art brought to its country.

CHILIAN FISH AND NAMES.—Dr. F. T. Delfin, who has recently published a catalogue of the fish of Chile in the *Revista Chilena de Historia Natural*, Vol. iii., 1901, has also published in the same journal for April 30th, 1902, (Vol. vi., pp. 36-51), a concordance of the vernacular and scientific names of the fish of Chile. We mention the matter in connection with a recent discussion on vernacular names in museums. It is possible that some curator, who may have Chilian fish to exhibit may be glad to know the names by which they are known in that part of the world. A point that appears from the list is the very local character of some of the names given, and the fact that some names refer to more than one species or even to species of two genera.

THE STUFFED MAMMOTH AT ST. PETERSBURG.—Dr. Arthur Smith Woodward, in *Nature* for July 30th, 1903, page 297, describes the mounting of the new mammoth in the Zoological Museum at St. Petersburg, as "a triumph of the taxidermist's art. The frozen skin has been cleaned, softened, and prepared. The skeleton, and as many of the surrounding soft tissues as possible, have been carefully removed from its interior and preserved separately. The animal has been actually stuffed like a modern quadruped, and placed in the attitude in which it originally died." The mount represents the morass into which the animal slipped. The chief value of the specimen is due to the fact that it was scientifically disinterred and carefully preserved by the best modern methods. The photographs taken by Dr. Otto Herz, at various stages in the excavation, are the first to be obtained of a mammoth buried in the tundra and are important as throwing new light on the question of the conditions under which these large quadrupeds were destroyed and entombed.

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# THE MUSEUMS JOURNAL.

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## The British Association.

THE British Association for the Advancement of Science met this year at Southport, under the presidency of Sir Norman Lockyer. It is natural that the greater part of the proceedings of such a body should only be of indirect interest to museum officials, but still there is never a meeting which a curator would not find himself the better for attending. The presidential address this year had several excellent qualities; it was thoroughly practical in scope, comprehensible to the laity, and brief—a pleasing contrast in this respect to some addresses we have listened to. It was in substance a cogently argued plea for a more generous treatment of higher education by the country. Sir Norman Lockyer maintained, and after carefully re-reading his address, we do not think he overstated the case, that £24,000,000 were needed to bring our universities up to the level of those of our chief competitors. “Let £24,000,000,” he says, “be set apart from one asset, our national wealth, to increase the other, brain power. . . . It is the case of battle-ships over again, and money need not be spent more freely in one case than in the other. Let me say at once that this sum is not to be regarded as practically gone when spent, as in the case of a short-lived ironclad. *It is a loan*, which will bear a high rate of interest.”

The burden of the President's address was re-echoed in some of the discourses of the sectional presidents. In section D, Professor Hickson dealt with the need for organisation among zoologists, in order to form a representative body capable of expressing the opinion of the faculty upon current wants, and bringing pressure to bear where questions in which zoological facts are involved come before governing bodies for decision. He adduced instances of positions, in which zoo-

logical knowledge was essential, being filled by men who knew nothing of the subject, and maintained that such cases would be less frequent if there were an organised body of specialists known to be taking an interest in the matter.

The sectional proceedings contained but little of general museum interest; perhaps those that would have been most generally acceptable were the communications of Messrs. A. J. Evans and J. L. Myres, on researches in Crete, and of Professor Flinders Petrie, on Egypt. In Crete a number of images have been brought to light which indicate the fashions in dress prevalent in the pre-Mycenaean epoch, including broad-brimmed hats, turned up at the front, and bolero-jackets. Mr. John Garstang's paper, on "Some Burial Customs of the Egyptians," described a number of practices which might find illustration in our museums, and the same may be said of the discourse by Professor Ridgeway, on "The Origin of Jewellery."

Some of the reports dealt with matters in which our museum colleagues might render essential service; such are those of the committees on "The Registration of Type-Specimens of Fossils," on "Geological Photographs," and on "Botanical Photographs." Much assistance might also be given by museums in the work of the corresponding societies; a great effort is being made to bring the members of these into more direct touch with the British Association, and to facilitate the production of useful work by their means. Numerous subjects are constantly being brought forward in which valuable results might be attained by collective investigation, and in many of these the resources of our local museums would be of great service.

In conclusion, we must call attention to the small but interesting local museum, organised by Messrs. Benson, Cheetam, Cross, and Sopp, in a corridor adjoining the Reception Room. Several cases were occupied by personal relics of John Dalton. There was a good series of local plants, insects, photographs, and drawings, whilst of very special interest were the examples of modern flint work, and specimens and models illustrating the origin and evolution of the penannular brooch, arranged by Mr. Edward Lovett.

## The Mannheim Conference on Museums as Places of Popular Culture.

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THIS conference, as announced on page 27 of the present volume, took place on September 21st and 22nd, having been convened by the Centralstelle für Arbeiter-Wohlfahrts-einrichtungen. The meetings were held in the Aula of the city Realgymnasium, under the presidency of Dr. Schenkel, Minister of the Interior for Baden, and were attended by about two hundred people interested in this social question, of whom over fifty were practical museum officials, from all parts of Germany, with half-a-dozen from Switzerland, Austria, and England. The programme already given by us was carried out with very slight modification. The meeting on each day lasted from 9.30 a.m. till 4.30 p.m., with an hour's interval for lunch, so that eleven hours of solid work were got into two days. None the less opportunities for social intercourse were abundant—at lunch, dinner, and in the evenings. Further, the museums and similar institutions of Mannheim and Heidelberg were thrown open to members, many of whom also visited the museums of Darmstadt, Mainz, Worms, and other neighbouring towns. Free seats were reserved for members at a special performance of "The Merchant of Venice," to which workpeople were admitted for 40 pf.

The object of the conference was to discuss in what ways museums could bring themselves into touch with the working people. The subject was introduced by Dr. Lichtwark, of Hamburg, who pointed out that modern museums differed from universities and academies in being open free to all classes; nevertheless, the very small proportion that the number of their visitors bore to that of the inhabitants showed that they needed to be made still more popular. Universal rules could not be laid down, but he foresaw a great revolution in the equipment and methods of museums, which would have to be brought into relation with men's daily life. The gradual change in the nature of museums was then traced by Dr. Jessen, of Berlin, who dealt with museums of fine and applied art, and by Dr. Lampert, of Stuttgart, who spoke of natural



history museums. There followed what professed to be accounts of actual attempts made by various museums to render their treasures more useful to a wide public; but these tended to become simple descriptions of the museums. One gathered, however, that the Bremen city museum depended more on labels than on guide-books, that visits to it were obligatory on the school-children, who afterwards were made to write essays on what they had seen, and that a reading-room and lecture-hall were connected with the museum. Dr. Lehmann explained how the exhibits of the Altona museum were devised so as to force their meaning on the duller spectator, *e.g.*, two cases of the same assemblage of animals, one in summer, the other in winter; the popularity of the recently installed fishery-exhibit showed how crowds could easily be interested in what really came home to them. A somewhat similar museum at Celle was described by Dr. Bomann. Professor Andreae advocated the use of photographs and their constant change, as at the Roemer Museum, Hildesheim; he thought that small museums should be many-sided. The description of the geological room at the Berlin Museum, admirably arranged by Dr. Jaekel, showed that it was intended for students rather than the great public. Mr. Osthaus believed that a joy in art should and could be brought to the working-classes, but the Folkwang Museum aimed at this by first influencing manufacturers and leaders of work through the exhibition of the best art, and chiefly living modern art, in the most beautiful manner. Better to create art to-day than to be learned in the art of the past. Thus could art be pressed into the service of all. On behalf of Dr. A. B. Meyer, Dr. Wandollek described the efforts of the American museums in this direction, especially as regards children. The similar efforts of the school-museum at Hannover were detailed by Dr. Wehrhahn, who said that the small people found his simple rooms more attractive than the large museum palaces. An account of the Ruskin Museum in Sheffield had been distributed to members, and Mr. Gill Parker confined himself to showing a large series of lantern-slides illustrating the activities of that institution. In the discussion on the above papers, Dr. Leisching, of Vienna, said

that the Austrian Government had established a circulating museum department, which sent art-collections to towns that had no permanent museum, and arranged for lectures on these exhibitions by teachers at the high schools. Scepticism as to the value and possibility of the whole movement was manifest in the discursive speech of Dr. Lessing (Berlin), who maintained that the public as a whole, from the man in the street up to "his Excellence"—and higher still—had not, and could not be given, a feeling for art, which term, however, seemed in the speaker's mind to signify chiefly ancient art and the old masters. A museum guide to art should be modelled on Huxley's "Crayfish." Dr. Pauli, of Bremen, was astonished to hear such retrograde views. No museum supposed that it could turn a road-mender into a connoisseur on a Sunday morning, but it might be proud to have inspired only one or two per cent. of its visitors. The upper classes felt themselves above instruction, but working people were far more susceptible, and it was from them that future creative artists were to be expected.

The programme of the second day, dealing as it did with limited questions of practical importance, gave rise to a more lively discussion. Dr. Lichtwark voiced those complaints about the architecture of museums with which we are familiar, objecting, among other things, to the corridor-like arrangement of rooms *en suite*, to the waste of space and money on a huge stair-hall, and especially to the domination of a whole museum by the architect's conception of his façade. As a small museum in which the architect and decorator had solved their special problem in a satisfactory manner, he instanced the Thorwaldsen Museum in Copenhagen. For appealing to the people of a large city, a number of small museums were better adapted than one large central museum. Dr. Jessen, emphasising the point that museums should be built for the objects placed in them, maintained that the buildings should not be erected until a large amount of material had been collected, since not till then could one see precisely what was wanted. Professor Grosse, director of the art museum at Freiburg, i. B., pointed out very clearly that one should not confuse the scientific study of art with the faculty of appre-

ciating beautiful works of art, which latter was the need of the lay public. The collections for these two purposes should be separated. He therefore advocated the setting apart for the public of certain rooms, in which carefully-selected objects should be displayed according to aesthetic principles, abundance of space being allowed to each object, especially to the smaller ones. Different classes of objects should be intermingled, and the exhibits should be changed at intervals. Guides, lectures, labels, and the like, were but to serve as ushers into the royal presence; the majesty of the great work of art should be left to speak for itself. Dr. Grosse was warmly applauded, and his ideas were supported by several subsequent speakers, for instance, Dr. Schmid, of the Bavarian National Museum, who also urged the value of small local museums for the encouragement of an art connected with the life of the people. Dr. Lehmann held that, so far as the public was concerned, the same principles were applicable to natural history museums. These ideas also found expression in a careful essay by Dr. Kautsch (Halle a. S.) on guides to, and lectures in art-museums. The aim of these should be not to give a watered-down history of art, but to teach people to see; not to instil theories, but to evoke a conception of form; to create artists and artistic craftsmen, not to stifle the artistic faculty under the weight of learning that oppressed our so-called cultured classes. Professor Fraas, of Stuttgart, speaking of similar methods in natural history museums, gave the good advice that illustrations should be, not pictures of specimens in the collection, but explanatory diagrams. His other remarks were much to the point, but the gist of them is familiar to our readers. In a detailed paper on temporary exhibitions in museums, Dr. Deneken, of Crefeld, inveighed against the superfluity of the usual class of exhibition, especially of art-exhibitions, which had done the greatest harm to the development of art, and were opposed to its true aims. Especially harmful were the permanent exhibitions of societies, with their commercial standpoint. For an exhibition to be useful, it should have a leading idea rigidly carried out; thus aesthetic pleasure could carry with it artistic instruction. Even when the museum relied on its own resources,

there should be a selection of exhibited material on these lines, and a constant change, so as to keep up the public interest. This change would be helped by loan exhibitions, but here, too, the most careful selection must be enforced,

A speech from the Minister of the Interior and a vote of thanks to the town of Mannheim brought the proceedings to a close, and it only remains for us to mention an exhibition of various museum objects and methods that had been arranged, along with a collection of literature bearing on the subject.

In estimating the value of this congress, one must not look for immediate results in the rush of working folk to museums. Museums as they now exist are not suited to this new part they have to play. Fresh museums must be built, old ones adapted where possible, and, above all, new men to direct them must be trained. Any doubt as to the trend of events would have been dispelled by attendance at this congress; in such controversy as there was, the younger men were all on one side, and it is their views that are endorsed by the able critic of the *Kölnische Zeitung* (27th Sept.). From a social point of view, the outlook is encouraging, and the Berlin headquarters for the betterment of the workers may be congratulated. And as for museum men themselves—let us note that this is the first public conference of museum officials, as such, that has been held in Germany, probably on the Continent. But, the first though it be, we find a remarkably large attendance, including men of the highest official standing, while the whole is patronised by the government, presided over by a Minister, and last, but not least, fully noticed in the press. Seeing how overdone with congresses they are in Germany, this bears witness to the skill with which the meeting was engineered. Whether it will give rise to further reunions, arranged by the museum officials themselves, remains to be seen; but this at least has been a gain, that it has brought together the mutually indifferent, not to say intolerant, science men and art men, and has shown them that they form allied branches of a great profession, working for one noble cause, and aiming at the same lofty mark.

## Museums Association.

THE ABERDEEN CONFERENCE, 1903.

ADDRESS BY THE PRESIDENT, F. A. BATHER, M.A., D Sc.

*(Continued from page 94).*

### APPENDIX I.—SOME QUOTATIONS.

Since the "Studies and Criticisms" of Dr. Richard Muther, alluded to on p. 77, are probably not accessible to most English readers, it may be of use and interest to translate a few more passages.

In his essay on "Das Breslauer Museum," he says:—

"Museums as such are barbaric institutions. In the great epochs of old they were not known. Then men had a true conception of the connected nature of all art. The picture was a decorative ornament of the wall, part of an harmonious whole. It was not until after the collapse of the aristocratic culture, when the more educated of the bourgeoisie took up the protection of art, that paintings were torn from their surroundings, so that, gathered in crowds, they might serve for instruction. The works of the old masters, which used to adorn churches and palaces, afforded material for teaching the history of art. The pictures of the new masters were displayed without right knowledge, and people visited museums to read painted stories or to be instructed in history, geography, and ethnography. It is but slowly that conditions have improved. Broadly speaking, the more we cease to be barbarians and become men of culture the nearer does our conception of art approach its earlier manifestations. The movement began with the artists. The Secession parties of Munich and Vienna have arranged their own rooms with such feeling, hung their pictures with so refined a taste, that one seems not to pace an exhibition hall, but to rest in the private gallery of some distinguished amateur. The directors of museums followed. Naturally, in public institutions it was impossible to set aside their educational aim. But even in museums the point of view of erudition does not exclude that of art. It is possible to hang pictures in such a way that the visitor as he passes through the galleries may get some idea of the historical evolution of art and at the same time receive a pleasing impression of the whole. Lichtwark in the Hamburg Art Hall, Bode and Tschudi in the picture-galleries of Berlin, have given proof of this."

In the article on "Fruehlings-Austellungen (Wien) 1900," Muther writes:—

"Apart from their commercial aspect, the only object of exhibitions is the education of the public, to prepare for art a kingdom in which it may flourish. Joy in art is awakened by the display of selected works of art in tasteful decorative surroundings. Understanding of art is deepened when the æsthetic, combined with the didactic, raises for discussion problems that are of critical importance for the artist-life. How many such questions present themselves! At one time we may try to give some idea of the works of a master or of a school. At another, we may suggest for discussion the legendary in art, caricatures, posters, the various schools of landscape painting, portraiture, methods and aims of sculpture. . . .

Also the number of pictures might be less. The exhibition of crowds of second-rate pictures only betrays to the public the senseless over-production of which our art-life continues to be always ill. . . . Just as scientific material becomes living only when it has passed through the human brain, so an exhibition bears no fruit until it illuminates some determined subject according to a clearly thought-out plan. The mechanical distribution of the raw material must be followed by its intellectual elaboration. . . . Do not ask whether a work is worthy of public exhibition. Such a question is too obvious. But ask: Why do I hang this picture? What results are to flow from it?"

Mr. Witt's book, "How to look at Pictures," met with so favourable a reception from the critics and the public, as to suggest that some opinions which I was trying to express were more widely held by men of knowledge and experience than I had supposed. This is why I wish to quote and comment on a few out of many similar passages.

"A picture is far more than an exercise for the mind, a book written on a single page, the coloured map of a moment, a lesson on canvas. A great gallery is no mere dictionary of art, useful for reference and study. . . . To arouse the powers of enjoyment, of abandonment to beauty as an end in itself, is the legitimate aim of art." (p. 8.)

"The catalogue is of little use from this point of view. It merely gives the name and date of the artist and possibly his school, or, if more ambitious in its construction, some account of his life, with a bald, prosaic description of the picture, a description which only emphasises the absence of what the weary seeker after enjoyment hopes to find ready to his hand. (pp. xiii., xiv.)

We want better labels and catalogues, to bring out the peculiar merit of each picture, the reason why it was painted, and the original surroundings for which it was intended.

"Another and most powerful deterrent to the careful consideration [and pleasurable appreciation] of pictures is undoubtedly their vast multitude. . . . A great gallery contains, perhaps, some thousands of pictures, of which many hundreds are of real merit. The difficulty of concentrating the attention on any particular picture is one which even experienced critics feel keenly, especially in a gallery where all is new and strange. The eye wanders from the picture on which it should be fixed to that which hangs close by, above or below. Unfortunately, exigencies of space and expense render the proper hanging of pictures almost impossible. There are few collections so well hung as that in Trafalgar Square, and yet even there, the frames jostle one another so closely that the eye tends to pass on, leaving the mind, as it were, a picture or two behind. . . . There is no doubt that the enjoyment of even an inferior picture hanging alone or in scant company in the house of a friend is relatively greater than that of a collection of masterpieces crowded together in a great gallery." (pp. xiv., xv.)

This points to the great reform required. If a masterpiece is worth paying thousands for, it is worth a few hundreds to display it properly. By storing the greater number of the pictures, space would be gained and expense would be saved, and at the same time the enjoyment of those left on exhibition would be enhanced. It is just because the museums insist on hanging everything they possess that so many pictures are

painted which the world could well do without. To increase the output is not the only way or the best way of encouraging art and a love of beauty, however good it may be for the painters and their families.

"Other difficulties arising from the actual arrangement of pictures, especially in the great public collections" are dealt with on pp. xv., xvi.; but the paragraph in question refers less to the aesthetic enjoyment of pictures than to their study, which is quite another form of enjoyment. There are so many ways from which one can study a series of pictures that no one method of exhibition can be satisfactory to every student. This difficulty also is to be got over to a large extent by the withdrawal of the pictures from exhibition, storing them in such a way that they are readily accessible as required, and bringing them before each student in the way in which he desires to see them.

#### APPENDIX II.—SUGGESTIONS IN MATTERS OF DETAIL.

##### I.—*Interiors.*

This expression denotes such arrangement and decoration of an exhibition gallery, or part of one, as shall recall the original environment of the indoor objects displayed, whether they be from cottages, churches, or palaces.

There are many ways of treating interiors, according to the degree of actuality aimed at. Thus, we may, with Dr. Brinckmann, of Hamburg, reconstruct rooms that shall be the absolute rooms themselves, transported from their original situation and re-erected within the museum, with every part genuine. The objects placed in such a room may be those that really were in the room at a certain period, as is so often the case in the studies or death-chambers of eminent men, such as may be seen in the Goethe Museum at Weimar, the Leibnitz House in Hanover, Swedenborg's summer retreat in the grounds of the Northern Museum, Stockholm, the summer-house of the poet Wergeland at Bygdö, and at Abbotsford, which is as much a museum as a house. Of similar nature is presumed to be the Marie Antoinette boudoir at the Victoria and Albert Museum, South Kensington. Or the furniture may consist of genuine and appropriate objects of a period covered by the life of the room: a room may have survived many styles of interior decoration, but the style and furniture chosen should, so far as possible, be contemporary with the building of the room. When, however, a whole house, or a connected suite of rooms, is preserved or reproduced, it may be advisable to treat the rooms in the manner of successive periods. The building of Hall-i'th'Wood museum, Bolton, dates from 1483,

and though its chief interest is in connection with Samuel Crompton (1753-1827), two of the rooms have, appropriately enough, been furnished to represent a sitting-room and bedroom of the XVI. and XVII. centuries.

The next stage is to have only part of the room genuine and the rest made up to match it. Starting with a door, some panelling, and perhaps a bit of ceiling, one may complete the fragments, and so reconstruct a room that serves equally well as a suitable environment for the exhibited articles, while it will not mislead students if the original portions be accurately indicated. Most museums that attempt interiors have to content themselves with this compromise. Such were the few rooms formerly shown in the Victoria and Albert Museum, South Kensington, but now dismantled; it is to be hoped that better opportunities will be afforded in the new building.

Finally, the exhibited objects alone may be genuine, and the room may be built to suit them, either as a more or less exact copy of some actual room, or after a specially prepared design in the style of the period or country selected. This last method may be scorned by the archæological purist, but it offers more encouragement to living artists and artisans, and has the advantage that the rooms can be made of any required size, and adapted to the existing plan of the museum building. Thus, in the Kunstgewerbe Museum at Düsseldorf, which is not a particularly large one, there are on the first and second floors nine such interiors, with an average size of about 18×20 feet.<sup>1</sup> (Pls. XVIII., XIX.)

The method of exhibiting interiors is subject to much variation. The whole room may be treated as an interior, with the displayed objects placed about as in real life, and yet it may all be accessible to the public. Such is the case with some of the rooms at Düsseldorf and Trondhjem (Pls. XIV., XV.), and in the reconstructed buildings at Skansen (Pl. XXVIII). This method implies either a more orderly public, or a number of guardians larger than we are accustomed to in England. To avoid this difficulty, only three-quarters of the room, or a bay of it, may be treated as an interior, the rest being left as a passage for the public. The interior portion may be separated from the passage, either by a rope, as at the Vestlandske Kunstindustrimuseum, Bergen (Pl. XVI.), and some of the rooms at Trondhjem (Pl. XIII.), or by being raised on a platform, as in the Landsgewerbe Museum, Stuttgart. Or the reconstructed room may be built up in the exhibition gallery, much as though it were a

<sup>1</sup> See "Festschrift zur Einweihung des neuen Museumsgebäudes in Düsseldorf am 30 Oct., 1896."



large case, and may be railed off from public access. Thus, in the Gothenburg Museum (Pl. III.), and in the Vaterländisches Museum at Hanover, one sees in the large hall a whole cottage built up, complete with roof, chimney, windows, &c., but with one side entirely absent, as in a room on the stage.<sup>1</sup> The latter museum also exhibits the reconstruction of a XVI. or XVII. century apothecary's shop, with the laboratory adjoining: one looks into the shop over the counter, and into the laboratory over the work-table. Or again, while the whole room is decorated in interior fashion, and all accessible to the visitor, the museum character may be retained, and the objects partly removed from touch, either by the smaller objects being placed in cases, or by the larger ones being raised each on a plinth. Both these methods are adopted in the Grassi Museum, Leipzig, and the latter is exemplified in the Folkwang Museum (Pl. XXIII.)

In these last-mentioned methods we pass from the actual interior effect to a general decoration of the room in harmony with the objects, but not so realistic. The National Bavarian Museum, while containing a few actual interiors, adopts this intermediate style for most of the rooms that illustrate periods of culture. (Pls. VIII—XII.) While no expense or trouble is spared in the building and decoration of the room itself, the objects are arranged in more show-fashion, and the smaller ones are placed in cases, which, however, are always specially designed. Thus several of the rooms remind one of the reception-rooms of a palace; and since it was from just such rooms that many of the objects came, the arrangement after all fully agrees with the principles advocated in my address. The beautiful display of the Wallace Collection in its old home at Hertford House also recalls this method; but the grouping of objects according to their classes, as paintings, sculptures, enamels, introduces a different principle of arrangement. A still less realistic, but most harmonious, style of decoration may be studied in some of the rooms at the Alte Museum, Berlin. Thus the walls of the so-called Greek Cabinet, in which are at present displayed small objects from Boscoreale, near Pompeii, and from Priene, are decorated in antique classical style. There is a painted ceiling and frieze, below which the walls simulate red marble, the lower eight feet being covered with a sage-green arras hung from rods. The various cases are of a red wood, either mahogany or stained, and harmonise with the red walls. Inside them is a linen background, of a paler green than the

<sup>1</sup> For an account of the latter cottage, see Hans Müller-Brauel: Die Winsener Bauernstube in Vaterländischen Museum; *Hannoverscher Anzeiger*, 26 April, 1903.

arras, and in my opinion somewhat too smooth in texture. In some of the free-standing cases the shelves are of dull-polished wood, in which the variety afforded by the natural grain is especially pleasing. Some of the larger objects are on marble stands. I would also draw attention to the top-lit hall containing Italian carvings, etc., of the XV century. The wall is covered with a cloth painted grey and stencilled with gold stars, fleur-de-lys, etc., and this is separated by a brown rail from a low sage-green dado. At intervals are vertical strips of a self-coloured sage-green woollen stuff, woven in a small pattern, and bordered with braid; these afford the needed darker background for the white marble busts by Mino da Fiesole and others, and at the same time break the walls up into spaces that permit a grouping of the objects in each around some central piece, such as a fire-place. The same principle, although in a very different style of decoration, obtains in the rooms exhibiting Norwegian peasant art at Bergens Museum (Pl. XX.). The interior effect is, as it were, suggested by a bit here and a corner there, but there is no attempt to reproduce whole rooms. That in fact is precluded by the number of objects for which space has somehow to be found.

Which of all these methods is the best to follow, must be decided according to the circumstances of each museum. It may, however, prove useful to reflect on the following passage in the *Årbog* of the Nordenfjeldske Kunstindustrimuseum, 1898-1901, p. 120:—

"The guiding principle in the arrangement of our collections has been," says Dr. Thies, "to apply the interior method of exhibition to the greatest possible extent. To certain of our museum-rooms we have sought to give as great a likeness to actual dwelling-rooms as could be attained with the series of objects at our disposal. An interior arrangement completely carried out in all the rooms of a museum of applied art can scarcely be regarded as other than an unattainable, though desirable, ideal. In a museum the separate departments of the collection—ceramics, glass, metal-work, textiles—will soon accumulate a crowd of closely related objects, each interesting in itself, but which, if all scattered round about the rooms, would give them quite an uninhabitable appearance. There are other reasons, too, why things of this sort should be covered by glass or locked up in show-cases. However unattractive such cases may be to the public in comparison with the interior arrangement, they cannot be done without altogether. Nevertheless show-cases and interiors must always be kept sharply separated. We should guard against the objectionable commingling of two such opposed methods of exhibition as the systematic expository arrangement in cases and the construction of interiors on artistic principles in illustration of the history of culture."

The assumption that underlies the above paragraph is the rule, too often violated, that no more should be placed in an interior than such a room might reasonably be supposed to have contained in actual use.

## 2.—*Backgrounds.*

Certain obvious principles, as that the background should not distract attention from the objects themselves, are applicable in all situations; but it is convenient to treat first of the walls of the room, and then of the backs, floors, and shelves of cases. What is said in the body of the Address may be supplemented by the following notes:—

### (a) *Of Walls.*

Large rooms may have warmer, stronger colours than small ones, since a warm tone makes a room appear smaller, while a cold one makes it seem larger. When Dr. Deneken came to the Kaiser-Wilhelm museum at Crefeld, he found a long corridor with large windows and with walls painted in bright colour. As it stood, it spoiled every attempt at exhibition. By altering the walls to a cool greenish grey, by reducing the light from the windows, and by breaking it into bays with screens, he has succeeded in converting it into a very pleasant gallery. At the same time, to counteract the effect of too great monotony and coldness, he has introduced small bright red blinds across the lower panes of the windows.

Many museum-directors, notably Moebius of Berlin, aim at a neutral tint, equally suitable to all objects, and hold themselves successful when visitors to their galleries leave without having noticed the colour of the background. For an assemblage of objects in which scientific arrangement is paramount, for any room in which one is forced to gather a large number of objects (whether pictures or no) of very different styles and colour-schemes, or for a hall used for successive exhibitions of varying nature, this principle affords a safe guide. But even so, no one tint or shade can be quoted as the unnoticeable background for universal use. The colour must depend on the size, lighting, and aspect of each room. Other authorities, moreover, maintain that, though an indifferent background may be discovered for certain objects of nature or art without a strong colour of their own, still, when dealing with objects in which colour plays an essential part, there is frequently so great a reaction between the colour of the object and that of the background that it is almost a physiological impossibility to find a tint which shall not affect one or other of the exhibited objects disagreeably.

But the difficulty is avoided, and other principles brought into play, when the crowd of scientifically-arranged objects is replaced by a few selected with an eye to artistic effect, or when the various groups can be displayed, each in its own

small room. The background for individual objects, or for limited groups, is then often chosen so as to enhance the effect of the colour-scheme of each, and to serve as a foil to the brilliance or the soberness of the object on which attention is concentrated. Prof. Lange, in his recent redecoration of the Stuttgart Museum für bildende Kunst, has followed this purely æsthetic principle, selecting as backgrounds for different schools or groups a colour complementary to that dominant in the colour-scheme of each assemblage. Other recognised authorities, as mentioned in the Address, are guided also by historic considerations. It is interesting to note how frequently the two methods lead to similar results. In the case of pictures, the reason for this appears to be that a good painter, consciously or not, paints for the respective backgrounds prevalent in the houses, palaces, or churches of his time; and these therefore remain the best for his pictures.

The term "background," in a broad sense, includes the whole surroundings of an object. For critical study, art-objects may be considered apart from their surroundings; but, in any attempt to arrange an exhibition room for public delectation, the setting cannot be regarded as indifferent. It is noteworthy that many continental galleries are returning to a treatment of works of fine art in their relation to human habitations or other buildings. Instead of rigorously separating pictures, sculptures, carvings, furniture, and so forth from one another, they intermingle them so as to produce a pleasing whole, while eliciting from each object its natural effect. The background of such an arrangement is an integral part of the scheme, and contributes its share of the total beauty. The principle is applied, whether pictures are the main consideration (*e.g.*, the art galleries of Berlin, Hamburg, Crefeld, Bremen, &c., and in the modern exhibitions), or are subordinate, as in museums of applied art, for instance Trondhjem, concerning which I will again quote Dr. Thiis (*op. cit.*, pp. 121-123):—

"Much attention has also been paid to the colour-effect of the rooms. Our aim has been in the first place to harmonise the colours in each room, but at the same time to obtain an effective contrast between adjacent rooms. While window-frames and ceilings are kept white throughout, so as not to reduce the light, the walls and floor are painted in strong colours without decorative ornament. Where wall-paper or brocaded panels are not used, the walls and floor are painted with transparent colours over a white or luminous ground; and, so as to give the colours more life than can be obtained by a simple coat of paint, the transparent coat has been grained with a comb while still wet. In one of the rooms, for example, the walls are painted a strong cold green, the floor is carmine-red with strips of green matting, while the curtains are of a Morris silk stuff with red dominant. In the so-called 'Renaissance Room' [Pl. XIV.], above the high green panelling, is a white design stencilled on a strong orange-yellow ground, to agree with the white and

and yellow woollen curtains, which bear a renaissance ornament designed by Morris. The greatest difficulty in attaining an interior effect was presented by the collections of peasant objects. These collections were still too incomplete to permit of actual cottage interiors being installed; at the same time the lofty cold rooms of the old school-house, with their plain painted match-boarding and the bare wall above, could hardly go with the brilliant striped colouring of the old furniture, beer-mugs, tapestries, and so forth. We could not see our way to effect a structural alteration of the rooms, by means of partition walls, into regular cottage interiors, with low roof and small windows. We therefore had to take the rooms as they stood, and try to harmonise them with their intended contents by means of painting alone. By marbling the roof and walls in strong colours, by painting the panelling in green or blue, and outlining on it a rough rose-like design, we have sought to suggest the rich colouring of the peasant home, and at any rate to produce some kind of harmony with the fresh peasant colours."

I have alluded to the different colours prevalent in different districts in Norway. This is carried out in the Folk Museum at Bygdö, as exemplified in Pl. XXI.

The texture of backgrounds is only less important than their colour. Nothing is so dull as a large expanse of flat painted wall, such as one so constantly sees surmounting the objects in our over-large galleries. The treatment of such surfaces described in the above quotation from Dr. Thiis is simple and effective. He employs not only graining with a comb, but also stippling with the brush, and dabbing with a sponge. All these and other methods are well known to decorators. In the rooms devoted to the earlier culture-periods in the National Museum, Munich (Pls. VIII., IX.), a successful attempt has been made to obtain an effect of antiquity, by brushing over the distemper with a dry brush, and so giving it a somewhat worn appearance. A play of light is also to be obtained by roughening the surface. Thus, the plaster may be cross-hatched or worked into curved lines with a large comb while still wet. Or the wall may be covered with a coarse cloth. Common sack-cloth looks well, and there is a choice of almost any colour in arras canvas. Canvas has the advantage that, when faded, or when another colour is required, it may be painted or distempered, as is done at the Grassi Museum, Leipzig. Loosely woven woollen stuffs are used in the Alte Museum, Berlin. I have not seen Japanese matting used in any museum, but in my own house I have found it a pleasing background, keeping its colour, and easy to clean.

#### (b) Of Cases.

The same general remarks apply. The colour must harmonise with the walls as well as with the objects. The texture should be finer than that of the walls, and smaller cases need a finer texture than large ones. So also, small

objects that demand close inspection must have a background of finer texture. Here is an opportunity for the use of richer materials, such as velvet and silk; but it is important to get really the best and to see that the colours are fast. Many foreign museums use a kind of coarse frieze, which can be obtained in white, cream, pale green, and other useful tints. Such dust as may come into the cases sinks into it, and the nap is easily freshened up by brushing; if allowed to get dirty, its appearance is offensive, but it is cheap and easily replaced. It suits some objects, such as metal-work, but the fashion of the moment has, I think, encouraged its use over much. In the Grassi museum it is even used to cover exposed stands. A pretty material is *toile japonaise*, which I saw in the armoury at Dresden; it is sold by Bernheimer, Maximiliansplatz, Munich, at a price of M. 1.20 per metre; but could no doubt be obtained in London. Few backgrounds look better than natural wood, but it should not be varnished or brightly polished. Glass shelves are now often used in cases, in order to let the light through to the lower shelves; but they are open to the objection that they afford no background, and the view of other objects seen through them is distracting. I would, therefore, suggest the use of rolled glass, which is of pleasing appearance, and does not permit the objects to slip about as they are apt to do on smooth ordinary glass. Glass shelves may, however, be used for quite a different reason, namely, to afford a shelf that is thin, has a smooth surface, and at the same time is not liable to warp; in this case they are covered with some material.

It may be of interest to mention a few special instances of the treatment of cases, and again I will let Dr. Thiis speak for himself (*op. cit.*, p. 121):—

"In furnishing the cases we have broken with the ordinary uniformitarian principles in respect to the material covering the shelves. Nothing is more wearisome to the eye, less advantageous for the individual objects, than those long stretches of cases, all to one pattern, covered with black velvet, that are so often seen in museums. Material and colour are with us specially chosen for each case, so as to agree with and bring out the character of the objects that the case is to hold. Thus, the old soft-coloured porcelain stands on a pale lilac silk, the strongly coloured Chinese porcelain on a deep yellow *moiré antique*. Part of the modern pottery, essentially things with a yellow or green glaze, is displayed on a background of a very strong violet *moiré*. For silver an ice-grey velvet has been chosen; and for the dark Japanese bronzes a long-haired blue and white *mohair* [frieze], which, with its uneven fur-like surface, helps to bring out the clean-cut forms of the bronzes, and heightens the colour-effect of their dark patina."

The Danish porcelain, with its blue and purplish tones, stands on a buff watered silk (*moiré*).

Coins, as is generally recognised, look well on a dark bronze-green velvet; the finer metal-work, especially gold, is

suiting by an apple-green velvet or by a rich violet; for special objects, strips of these two colours may be intercalated with good effect. In Dr. Brinckmann's cases of Japanese objects, the shelves are made of bamboo, covered with a fine Japanese matting; this would look better if the objects were not quite so crowded. In the Landesgewerbe Museum at Stuttgart, felt is used as a ground for the coarser textiles, while the finer materials are on screens covered with unbleached linen. White laces are laid on a mauve silk, which, however, fades, and also on black velvet; the black Spanish lace lies on yellow silk.

### 3.—Cases.

In a scientific or technical museum the advantages of having a uniform standard for cases are fully recognised. In a systematic series the idea of order is emphasised by the similarity and regularity of the cases, and here, so far as the furnishing of a single room is concerned, I am fully in accord with the remarks contained in Mr. Jeffrey Bell's valuable contribution to our proceedings. There are, however, fundamental differences between such museums or such portions of a museum and those public exhibition-rooms of an art-museum of the kind I am advocating. In attempting to get the utmost artistic effect, we have to realise that the model of case suitable for one object or one group of objects is almost certainly not equally suitable for things that are of quite a different character. Similarly the case best adapted for one position may not look equally well in another. Variety, so long as it is intentional and governed by good taste, is in itself a source of charm; and there seems no good reason why the cases themselves should not afford æsthetic pleasure to the beholder, without unduly detracting from the effect of the contained objects. This last is the ideal set before themselves by Mr. Osthaus and Professor Van de Velde in the beautiful Folkwang museum: each case is designed with immediate view to the objects that it is to display, and at the same time with reference to its position in the building, while in form and workmanship it is itself an expression of artistic thought. Every one may not sympathise with the style of art in each instance; but the art is there, and will at least give the spectator something to think about. For details of these cases I may refer to Professor Van de Velde's article on "Das Museum Folkwang in Hagen," in his periodical *Innen-Dekoration* (October and November, 1902), also to Plates XXII., XXIII., here reproduced from photographs which I was kindly permitted to take.

Another example of a case that is both an object of art and intended for the artistic display of selected pieces, is to be seen in the Trondhjem museum (Pl. XXIV.).

"It is of mahogany, designed in Empire style by the architect Gabriel Kielland, and constructed by the carpenter Kvenild, of Trondhjem. The case is intended to serve as an example of *the use of pottery in the decoration of furniture*; that is to say, it has been made, from a sketch by the curator, so as to include a strip of mahogany in which are inlaid a row of rosettes of blue-green glazed porcelain, a work of the French potter Delaherche, bought at the Paris Exposition. The case is used for the display of a specially selected series of artistic works in glass and pottery. Among them may be noticed an antique terra-cotta figure and bowl, glass by Gallée, Tiffany, Daume, Koepping; pottery by Carriés, Dalpeyrat; a terra-cotta figure by Dejean, and an old Japanese bronze from the Goncourt collection."

Cases designed by Van de Velde and by the late Patriz Huber are used in the Kaiser-Wilhelm Museum, Crefeld.

In the National Museum at Munich almost every room in which cases are used has its own style of case, as may be seen from the photographs here reproduced. (Pls. VI., VII., XI., XII.) Those in Room 73, devoted to manuscripts, printing, and illustration, are particularly pleasing; the walls of the room are pea-green, and the cases, which are suggestive of reading-desks, are of wood, painted a streaked reddish brown. The cases introduced in the rooms displaying the earlier culture-periods are for the most part after the design shewn in Plate XXV.; this particular case is in Room 4, containing small objects from the later Roman period of Bavaria; the ornament on the plinth of the case is in papier-maché, which has been pressed into a plaster mould taken from a contemporary stone carving, and then coloured. The other cases in other rooms reproduce ornament in each instance of the appropriate period. This room has a central column and a vaulted roof; the tympanum of the door contains a plaster cast from a relief in the chapel of Wartenberg Castle, near Erding; the sentence seen on the wall behind the case is from St. Benedict.

The large cases suitable for objects of natural history, and especially the iron cases with very thin frames, are not appropriate to an art-museum. The future may produce a style of art in spiderlike steel-work, with which such cases may harmonise; but at present the eye is scarcely prepared to see these huge expanses of glass, almost without visible means of support. The thicker framework of the older type of case is a structural feature capable of assuming an artistic form; moreover, it serves as a frame for the displayed objects, and helps in the attainment of a group-effect.

The preceding remarks are intended to refer to cases in the more decorative parts of a public gallery. But, if a



museum is to divide its collections in the manner suggested, it is no less necessary to consider the accommodation for storing those specimens that are not displayed in public. These specimens may be either such as are entirely reserved for investigators or for students, or they may be a reserve store from which a selection is made at intervals for public exhibition. In designing a case, the curator should first decide for which of these purposes it is intended.

We may first consider the latter purpose. Limits of space frequently necessitate the combination of store-cabinets with an exhibition space, as, for instance, in the ordinary table-case supported on cupboards or tiers of drawers. That this is possible without loss of artistic effect is proved by the large case in the Folkwang Museum. (Pl. XXIII.) Such combination may also save time as well as expense. From this point of view the cases in the Landesgewerbe Museum at Stuttgart deserve study, although their style of ornament is not one that I personally admire.

Here a case for small objects, such as Japanese sword ornaments, consists of a chest of shallow interchangeable drawers, in which the objects are arranged as for exhibition, with labels, &c ; the top of the chest is glazed, so that one looks directly into whichever drawer happens for the time to be uppermost. Thus a mere shifting of two drawers changes the whole of the exhibited series ; or, if one wishes to examine closely the series that happens to be exhibited, one can just remove the drawer and put another in its place. For convenience of handling, cleaning, and so forth, the top of the case is made to open like a box-lid.

The case for Japanese kimonos is most practical. Each kimono is stretched on a paper-covered screen ; a number of these screens are placed one behind the other in a sort of wardrobe-case with two glazed doors, each screen being hung on the sides of the case by pivot-and-socket hinges, so that on opening either door of the case one can open out the screens on that side like the pages of a book, and can select any one and place it in the front ; in this way the garments on show can be changed as often as required with exceedingly little trouble. This is a great advantage, since it is not well to expose these delicate silks and embroideries to the light for long periods. For their further protection a blind can (if I remember rightly) be pulled down the front of the case.

Japanese kakemonos are rolled up and laid in partitioned drawers, which are stacked in a high case with glass doors ; inside each door is a screen on which is hung the kakemono that it is desired for the time to exhibit. Here, again, the change is readily and rapidly effected.

Samples of textiles and similar objects are mounted, each on a small screen, and these screens are stacked in the lower portions of desk-cases behind glazed doors; each door, each compartment of the desk, and each compartment of the narrow upright case that surmounts the desk is made of a size to receive one of these screens. Thus any desired pattern can at once be taken and placed on exhibition, or any pattern, whether exhibited or not, can in a moment be removed for detailed examination.

With a series of cases of the various kinds described, one man can change the whole exhibited contents of a large gallery in the course of a morning, without any disturbance. The details of these cases have been most carefully thought out, and it is much to be wished that the working drawings should be published for the benefit of curators. But I am sure that the head of the museum, Excellenz Von Gaupp, would be pleased to furnish full information to any *bona fide* enquirer.

The case last mentioned is an adaptation of that already in use for Lepidoptera at Strassburg and Hanover, and represented in Plate XXVI., from a photograph taken in the latter museum by kind permission of Dr. Fritze. Below are cupboards containing interchangeable drawers; above are desk-cases in which these drawers can be laid for exhibition without more ado; these are surmounted by a narrow upright case, taking two rows of these drawers on each side; in this last the drawers are supported by a rough wooden framework, partly seen in the open case at the right hand, while another has been placed on the floor. To preserve them from the light, the exposed drawers are protected by movable cards, some of which are seen to the left of the photograph. This model of case could readily be adapted to all kinds of small objects.

Turning to cases for the storage of material for specialists and students, I wish again to emphasize the importance of interchangeable drawers. Nowadays no museum should be furnished with drawers of any other kind, and wherever possible the old drawers that cannot be interchanged, even when ostensibly of the same size, should be replaced by the new model. Such drawers are made in multiple sizes, and each is provided with a couple of side-fillets. These run in grooves cut in the sides of the case at intervals corresponding to the modulus adopted. Thus, if the grooves be one inch apart, the drawers may be two, three, four, or any number of inches deep, and a five-inch drawer may at any time be replaced by a two-inch and a three-inch drawer; or fresh drawers of any appropriate depth may be intercalated at any

position in the series, the pre-existing drawers being shifted on. Fresh cases are supplied as required, and receive the overflow from the older cases. Assuming that each case contains two columns of drawers, each two feet wide, with a middle partition of two inches, then for larger objects there may be provided other cases of the same size, but with drawers 4ft. 2in. wide, and a case may at any time be adapted for such drawers by removing its middle partition, or *vice versa*. Since drawers cannot be made perfectly interchangeable and at the same time tightly fitting, it is necessary that they be provided with lids, preferably of glass, so that their contents may at once be seen. In the Geological Department of the British Museum, where we are only just beginning to introduce interchangeable drawers, we have retained the old sliding glass lid. This is not quite dust-proof; but we have in addition doors to the cases. For objects more destructible than fossils, *e.g.*, bird-skins, one may employ the lid shewn in the accompanying section (fig. 2), which I noted at the National Hungarian Museum

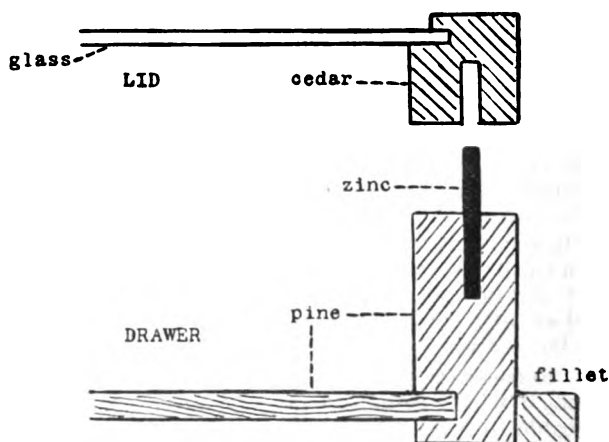


Fig. 2. Section of drawer in Buda-Pest Museum.

in Buda-Pest. The zinc strip fits very tightly into the frame of the lid, and the use of cedar keeps away insects. In the drawers for entomological specimens, all the sides are of cedar, and the metal band is turned over the inner edge of the drawer, affording further protection. Such cases should never exceed the height at which the top drawer can be reached and lifted out without steps. The cornice and plinth should not return along the sides, so that the

cases as they come in may be placed close up to one another. High cases, however, require a cross-bar to tie the sides; it might therefore be better to make the cases half the height (say 3ft. 3in., or 1 metre). They might then either be stacked in two tiers, or serve as stands for desk cases; and the cases themselves would be as interchangeable as the drawers.

By this method it is possible always to maintain an arrangement of specimens according to a pre-ordained plan. If the divisions of this plan be numbered according to some system capable of indefinite expansion, *e.g.*, Dewey's Decimal, then corresponding numbers can be placed on the drawers. Each drawer, each column, each case, and each room should bear a label, briefly indicating its contents.

#### 4.—*Lighting.*

I find it hard to believe that a direct top-light, immediately from above, is suitable for any kind of museum specimens, and, so far as I can gather, even those who advocate a top-light admit the need for some modification of it. That is to say, either it must be diffused by passing through a screen of ground glass or some thin woven material, or it must be reflected towards the sides by an opaque screen hanging over the middle of the gallery, or, better still, it must be introduced from the sides of the roof only and not through its central portion. When visiting a top-lit picture-gallery I always want to put up a parasol. All these modifications are attempts to overcome an evil that is generally necessitated by the plan of the museum rather than due to a firm conviction that a top-light is the ideal one. When a top-light is combined with table-cases, the observer's head gets in his own light, and to see small specimens it is necessary to take them out of the case, and to hold them up in an uncomfortable position. Fourteen years of this has shown me its defects. It is also a mistake to suppose that a top-light does away with reflection from vertical glazed surfaces, such as the fronts of wall-cases. A further improvement is to introduce the light from the upper angles, or to have a glazed coving below the ceiling. Such a mode of lighting, if confined to one side of a gallery, is suitable for statuary, as may well be seen in the Albertinum at Dresden. The light, striking the sculptures at an oblique angle, brings the delicate modelling into relief, whereas a vertical light translates the statues into heavy masses of black and white. The defect of the method is that the wall immediately under the glass is suitable for nothing. Carvings in low relief, however, require the light to fall at a less angle.

There is a compromise between top-light and side-light that consists in placing windows in the upper half of the wall; but this is rarely satisfactory. If the windows be on one side only, objects on the wall below them are in the dark. If the windows are on both sides, the cross-light is often distressing, and it is hard to avoid glare in the spectator's eyes. The most comfortable kind of room seems to me to be that in which windows are placed in the walls at an ordinary height, while the cases or exhibition screens are at right angles to the windows, or, better still, so inclined that the light falls on them at an angle more nearly approaching  $45^\circ$ , as in the Alte Museum, Berlin.

The chief opposition to my views seems to come from those who have to do with pictures; I will therefore support myself by one or two quotations. In "How to Look at Pictures," Mr. R. C. Witt says:—

"It must also be remembered that a spacious well-lighted gallery is not always the best setting for every picture. Old pictures were not painted with an eye to the uniform requirements of the modern picture-gallery, where individual wants cannot possibly be considered. Many were intended to serve as altar-pieces in the dim religious light of church or cathedral, often indeed designed to fit into the architectural framework of the latter. In some cases, where the painter has consciously adapted his picture to such a position, much of its effect is lost in the cruel glare of a picture-gallery." (p. xvi) "Many pictures, notably those of the Dutch School, on the other hand, were painted to hang in the limited space and moderate light of a dwelling-room. These are lost on the large wall expanse of a high gallery lighted from the top. To them the system now being introduced wherever possible of small cabinets lighted by side windows instead of from the ceiling is admirably suited, care being taken that the light on the picture is adequate and falls from the side intended by the painter." (p. xvii.)

Referring to this part of my Address, the director of the Kunsthalle zu Hamburg writes:—"What you say about top-light and its disastrous effect on the expressiveness of painting appeals to me very strongly. I, too, regard a side-light as the natural one for our human habitations, and if our museums would in this respect follow our houses and castles I should hail their action with joy."

##### 5.—*Storing of pictures.*

The remarks in the address are only suggestions. There are, no doubt, a few difficulties to contend with. One is the hurtful effect of change of temperature, especially on the older pictures painted on wood. But none of these difficulties is physically insuperable, and if the thing has to be done, many ways of accomplishing it can be devised. Another plan would be to fix the pictures on screens, which could be raised or lowered like the scenery of a theatre.

On this subject, Dr. Lichtwark has kindly written me as follows (Feb. 10, 1903):—

"The museums of natural history have given the example of dividing exposition and magazine. Fine art museums ought to follow. Only we must confess that they will find some difficulty in doing so; you cannot stow away pictures as you do eggs and plumages. And our fine-art museums have not been built to aid the movement. But in future we shall be bound to invent magazines for pictures where the student may examine his prey at ease. I imagine a series of low and well-lit chambers with their walls covered down to the floor—something like the compartments in modern libraries, perhaps with double rolling walls moving on rails."

#### APPENDIX III.—OPEN-AIR MUSEUMS AND PEASANT ART.

This is not the place for an article on Open-air Museums, but a few notes may make the allusions at the close of my address more comprehensible by those unfamiliar with these latter-day developments.

It is a curious fact of geographical distribution that, so far as I am aware, open-air museums are confined to the three Scandinavian countries, and are as yet unknown in sunnier climes. The reason doubtless is that they are gradually spreading from Stockholm as a centre of distribution; for it was there that the most important of them was originated by the patriotic genius of Dr. Artur Hazelius, the founder of the Northern Museum, which is in fact, though not in name, the national museum of Sweden. That division of it which constitutes the open-air museum is generally known as Skansen (lit. 'the fort'), from the name of that elevated part of the park, Djurgården, in which it is situated. It was opened to the public on 11th October, 1891. Sweden has yet another open-air museum in the Kulturhistoriska Museum in Lund, due to the enthusiasm of Dr. G. J. Karlin. The collections, after being stored for some years in various buildings, were transferred to this museum, and opened to the public on 7th September, 1892. At Christiania, old buildings had been erected by the King near his summer-palace on the peninsula of Bygdø, while the corporation had removed a few old cottages and rebuilt them at Frognerstøtten; but the movement did not progress until the Society for a Norse Folk Museum, founded a few years previously, bought some land on Bygdø in 1898, and there laid out an open-air museum, which was opened in the spring of 1902, under the direction of Mr. Hans Aall. About the same time, Mr. Bernhard Olsen, the founder and director of the Danish Folk Museum, obtained some land at Lyngby, seven miles from Copenhagen, and, with the re-erection of several fine old houses, there inaugurated the fourth of the Scandinavian open-air museums.

However much these museums may differ in plan and development, they all originated in a desire to preserve the ancient dresses, implements, and furniture of the Scandinavian peasantry before they had become entirely swept away by the vulgarities of the present culture-period. In each instance, the collections were at first housed in such rooms or buildings as were available, in the ordinary museum manner. The next stage was the reconstruction of cottage interiors, or even of out-door scenes of country life, which, in the Northern Museum, were peopled by lay-figures in appropriate costumes and attitudes. But why stop at interiors? said Hazelius. The buildings themselves were equally worthy of preservation; all that was needed was land. Cottages were purchased, but many years elapsed before the site was obtained to which they could be removed, and the objects of the home placed in and around them. At the same time the lay-figures were replaced by living beings—actual peasants from the several districts, and even Lapps. The same course of development has been followed, on a smaller scale, at the other museums, that on Bygdö being at present in an intermediate stage.

In each instance, the separate buildings and other portions of the open-air museum have sprung up as a supplement to a museum of national antiquities or specialties arranged on the more ordinary plan; and in each instance such a classified collection continues to exist alongside that open-air section, which, from its greater area and attractiveness, makes more impression on the public. At Stockholm, for example, the large collections of the Northern Museum are now being arranged in a fine new building near the entrance to Skansen. Here will be the stores and material for specialists, as well as a systematically exhibited series for students. But these do not now concern us.

The area of Skansen is about 60 acres (circa 24 hectares). It is laid out in woods, paths, ponds, and gardens. The exhibits comprise cottages, farm-buildings, and belfries, from various parts of Sweden (Pls. XXVII.—XXX.), charcoal-burners' huts, Swedenborg's summer-house, Eskimo huts, a Lapp encampment (Pl. XXXI.), a maypole, milestones, old cannon, vehicles, stocks, and almost every kind of man-made object that one might, not so long ago, have seen in one's walks abroad. In addition, there are numerous enclosures for Scandinavian animals, and a botanical garden for Scandinavian plants. There are picturesque and cheap restaurants, and a platform for national dances. For the activities of the Northern Museum are not confined to the preservation and exhibition of material objects, but endeavour

to revive and perpetuate the artistic elements of the national life. The attendants and labourers are peasants in their national dresses, and, to encourage the wearing of these, all who come so clad are admitted free. Besides dances, there are performances of national music, vocal and instrumental; then there are fêtes on such days as the first of May and Midsummer Eve, historic processions, wedding processions, and occasionally performances of saga-plays on the long summer evenings, when robber-knights ride out from the dark belt of firs, elfin children dance on the greensward, red-capped gnomes spring from the rocks, till the monks pass in white-robed procession to their chapel, and stillness returns with the vesper hymn.

All this multifarious energy is inspired and controlled by the one idea—the awakening of all that is best in the national spirit, in the belief that this can be accomplished less by talking than by showing to the people that which is noblest and most beautiful in their great past, and that which still to-day makes the riches of the country. The motto of the Northern Museum is “Know thyself.” The danger that the first pure enthusiasm may be dissipated, and that these performances may degenerate into mere money-making entertainments, is as yet far distant. Skansen, at all events, with its wholesome recreation, is beating the neighbouring variety-halls out of the field.

Comparing Skansen with the other open-air museums, we note the absence of any representation of burgher, or of aristocratic life, such as is shown at Lund and Bygdö. These museums have been arranged on a more definite plan. The model of the Norse Folk Museum on Bygdö (Pl. XXXII.) shows how a relatively small area is being dealt with. The site has been divided into two parts, one for the town, one for the country. Through the town gate one will enter a little street, leading to the square. Here on the left is seen the church, originally the Christiania pavilion at the Bergen Exhibition, and now serving for the display of ecclesiastical art, while old tombstones are in the churchyard. Between the street and the church are storehouses, at present containing the means of transport, which eventually will be placed in the large coach-house opposite. The latter building is now used for the exhibition of numerous interiors (Pl. XXI.), some of which will be transferred to the town-houses, which are to be erected on the fourth side of the square and along the street. These will represent the town architecture of the last three centuries, and will also contain rooms reminiscent of persons eminent in the history of Norwegian civilisation. From these houses a country road will lead to the right,



around a screen of trees, into the country district, where are being brought together cottages and farm buildings from all parts of Norway, each in its own appropriate surroundings. Passing a small wooden church, the road will come to the Norwegian counterpart of our village green, a place for dances and other performances; it will then ascend a fir-crowned elevation, with a representation of the saeter and forest life, and so wind back to the town.

I say nothing about Lyngby, because I have not yet been able to visit it; while as for Lund, Dr. Karlin, who has kindly lent me some illustrations (Pls. XXXIII., XXXIV.), gives some account of it in his own paper, which we hope to see soon in our *Journal*.

English readers who wish to learn more of these museums may be referred to an article in the *Studio*, for December, 1900 (vol. xxi, pp. 158-171), by Mr. Georg Bröchner, entitled "Open-air museums for London. A Suggestion." The museums themselves publish plenty of literature,<sup>1</sup> but this is almost entirely in the Scandinavian tongues, and is, in any case, somewhat inaccessible in this country. In fact, the publications of the Northern Museum are to be seen by us only in the libraries of the Anthropological Institute and the Society of Antiquaries in London, the Cumberland and Westmoreland Antiquarian Society in Kendal, and the Society of Antiquaries of Scotland in Edinburgh, that is to say, four in all. This is in striking contrast with other countries, less allied with Scandinavia than is our own. For example, France takes fifteen copies; Holland, nine; Belgium, six; Austria, twenty-six; Switzerland, ten; the United States, seven; Russia, eleven; while Germany has no less than 124 societies or museums in correspondence with the Northern Museum. The publications of the other open-air museums have a less extensive circulation, but the facts with regard to it are of similar nature, the chief difference being that, so far as I can gather, no copies whatever find their way to public institutions in Great Britain. The fault does not lie with the Scandinavians.

Passing from Denmark into Germany, we find the seeds of open-air museums in the revival of interest in peasant art,

<sup>1</sup> *Meddelanden från Nordiska Museet*, from 1897 onwards. Stockholm. The volume for 1901 contains a list of publications by or concerning this museum, which list occupies twelve pages.

*Föreningen för Norsk Museum, Aarsberetning*, from 1895 onwards. Kristiania.

*Kulturhistoriska meddelanden, Quartalskrift utgifven af Kulturhistorisk Föreningen för Södra Sverige*, from 1895 onwards. Lund.

These museums also publish small guides.

in the cottage interiors now to be seen in many museums, and in the numerous small local museums that are springing up with the fostering of national arts and handicrafts as one of their main objects. Concerning the good work that museums may do in the cultivation of a truly national art, suitable for people of small means, I shall say no more, since Dr. Thiis has himself set before us the excellent example of Trondhjem, and Dr. Justus Brinckmann has kindly promised us a paper on the modern study of "Volkskunst" in Germany. But just to give an idea of what is doing, I may mention that during the last decade no less than twenty small museums have been established in Upper Bavaria alone. These encourage among the people the love of their native villages, and gather up the old products of home art and industry to serve as good models for the handicraftsmen of to-day.<sup>1</sup> What can be accomplished in this small way is shown by the two interiors represented in Plates XXXV. and XXXVI. There is, of course, much being done by various individuals and societies in our own country to encourage peasant art, but my present object is to point out the help that can be given by museums, and the lines along which museum-men might work with profit. If, by any labour of ours, we can increase the intellectual attractions of village life, and so maintain a race of country-folk, or if, by accommodating art to the needs of the humble, we can mitigate the ugliness of town-life, then, in either case, we are doing a national service.

#### LIST OF PLATES.

Plates I—XIII., XX—XXIII, XXVI—XXVII, have been made for this address from photographs, in most cases specially taken for this purpose. For permission to take photographs, my best thanks are due to the directors of the various museums mentioned, as well as to those of many others, which were illustrated when the address was delivered. The blocks for the other plates have very kindly been lent by the various authorities mentioned, and to them also I offer hearty thanks.

- |       |   |                             |
|-------|---|-----------------------------|
| I.    | Gothenburg Museum ;   | interior burgher's house.   |
| II.   | " "   | interior temp. Gustaf III.  |
| III.  | " "   | cottage interior.           |
| IV.   | " "   | hall of ecclesiastical art. |
|       | I. to IV. from photographs by A. Jonason, sent by Chamberlain Lagerberg. See p. 84. |                             |
| V.    | National Bavarian Museum, Munich ;  | exterior.                   |
| VI.   | " "   | room 51, metal work.        |
| VII.  | " "   | room 73, MSS. and printing. |
| VIII. | " "   | room 2, Roman period.       |

<sup>1</sup> See "Die Ortsmuseen in Bayern," *Volkskunst and Volkskunde*, I, p. 43 ; Munich, 1903.

- IX. National Bavarian Museum, Munich; room 5, Romano-Christian.
- X. " " room 15, Gothic church.
- XI. " " room 22, Dachau.
- XII. " " room 46, Empire style.  
For plates V—XII., see p. 85.
- XIII. Nordenfjeldske Museum, Trondhjem; Van de Velde room.
- XIV. " " Renaissance room. See p. 117.
- XV. " " Rococo room.  
XIV. and XV. lent by the director, Dr. Thiis.
- XVI. Vestlandske Museum, Bergen; interior, early XIX Cent. Lent by the director, Dr. J. Bøgh. See p. 113.
- XVII. Vienna "Secession"; an exhibition room. Lent by Der Vereinigung Bildender Künstler Oesterreichs. See p. 86.
- XVIII. Museum of Applied Art, Düsseldorf; Gothic chapel.
- XIX. " " Florentine room. This and the preceding lent by the director, Dr. Frauberger. See p. 113.
- XX. Bergens Museum; Telemark room. See p. 115.
- XXI. Folk Museum, Bygdö, Christiania; rooms of peasant art. See pp. 89 and 118.
- XXII. Folkwang Museum, Hagen, Westphalia; landing. See pp. 90 and 120.
- XXIII. " " case for antique pottery. See pp. 114, 122.
- XXIV. Nordenfjeldske Museum, Trondhjem; cabinet. Lent by the director, Dr. Thiis. See p. 121.
- XXV. National Bavarian Museum, Munich; show-case. Lent by the director, Dr. H. Graf. See p. 121.
- XXVI. Provincial Museum, Hanover; butterfly cabinet. See p. 123.
- XXVII. Open-air Museum, Skansen, Stockholm; Oktorpe farm.
- XXVIII. " " room in same.
- XXIX. " " stone hut and belfry.
- XXX. " " Hornborga cottage.
- XXXI. " " Lapp encampment.  
XXVIII. to XXXI. lent by the director, Dr. Gunnar Hazelius. See pp. 92 and 128.
- XXXII. Norse Folk Museum, Bygdö, Christiania; model. Lent by the director, Dr. Hans Aall. See p. 129.
- XXXIII. Kulturhistoriska Museum, Lund; burgher house.
- XXXIV. " " room in Blekinge farm.  
These two lent by the director, Dr. Karlin. See p. 130.
- XXXV. Museum of Rosenheim, Upper Bavaria; peasant kitchen. Lent by Der Verein für Volkskunst und Volkskunde, München. See p. 131.
- XXXVI. Museum of Peasant Art, Kaufbeuren, Suabia; cottage interior. From the work "Volkskunst im Allgäu," by Architect F. Zell, in Munich. Lent by Die Vereinigte Kunstanstalten, München. See p. 131.

## The Preservation of Natural Colours in Dried Plants.

By E. M. HOLMES, F.L.S., Museum of the Pharmaceutical Society of Great Britain.

[Read at the Aberdeen Conference, 1903.]

THE gradual alteration in the colours of plants preserved in herbaria is well known. While some flowers, such as Gentians, retain their blue colour for a considerable time, others, such as Campanulas, quickly lose their natural tint, even during the drying process. It is generally recognised that the best means of preventing these changes is to dry the plants as quickly as possible, using the drying paper whilst still warm from the oven or stove, and changing it every few hours until the plants are no longer flaccid. This, however, is not always sufficient. In some plants, such as Sedums and Orchids, the plants appear to have the power of absorbing moisture from the atmosphere, or of retaining their own moisture, and the leaves of the former, and the fruit of the latter will continue to grow in the drying paper, unless the plants are killed by dipping them into boiling water for a few seconds. In other cases, such as that of the Red Poppy, the brilliancy of colour is lost, apparently by absorption of ammonia from the air, or by its production by chemical action in the flower, since by brushing the petals with an hydrochloric or other acid, the flower can be dried as nearly as possible of its natural hue. Green leaves rarely retain their characteristic tint when dry. Changes in colour are apparently due to oxidation, since treatment with sulphurous acid, which is a deoxidising agent, whilst it deprives the flowers and leaves of colour temporarily, does not do so permanently, for the natural colour returns on exposure to the air as the volatile acid passes off. The process of oxidation apparently takes place only in presence of a certain amount of moisture, since flowers dried and kept dry in the presence of quicklime do not lose their colour even after the lapse of many years and even though exposed to ordinary daylight. In proof of this I am able to place before you specimens of flowers of the Mullein and the Violet,

which after drying were placed in bottles, containing quicklime in hollow stoppers, at least twenty-five years ago, having been obtained from the Paris Exhibition of 1878, where they were exhibited by Mr. Cornelis, of Diest, Belgium, the manufacturer of the bottles. The fading of the colours of vegetable preparations has usually been attributed to the action of sunlight, notwithstanding the fact that living plants excluded from sunlight become bleached and etiolated, a knowledge of this fact being commonly utilised in growing Celery and Seakale. The action of light, if any, in destroying colour is in all probability due to chemical action or oxidation induced by the actinic or chemical rays. The fact that this change does not take place in vegetable substances when completely dry suggests that oxidation is due to some other cause.

The attention that has been directed of recent years to the natural ferments contained in plants has shown that a certain number of these, which have oxidizing properties (and are therefore called oxydases), can in the presence of moisture, of varying amount in different cases, set up oxidation in apparently dry substances like gum, even in the presence of weak alcohol such as is contained in wines or medicinal tinctures. In the Museum of the Pharmaceutical Society of Great Britain, of which I have the honour to be curator, the specimens of plants after being submitted to a process of drying which is necessary as in the case of leaves, flowers, roots, or barks, in order to prevent their becoming mouldy, are placed in bottles rendered airtight by using a little vaseline or soft paraffin around the stoppers. In the case of gums this is not considered necessary, as they do not become mouldy under ordinary conditions. On one occasion on opening a bottle containing the gum of a species of *Sterculia*, I was struck with the powerful odour of acetic and formic acids that filled the bottle, although when kept in paper the gum has no such odour. It was evident therefore that although the gum was apparently dry, chemical changes had been going on. Similarly, Kino, an astringent exudation obtained from *Pterocarpus Marsupium* and various species of *Eucalyptus*, is known to become less and less soluble in water on keeping, and the tincture made with proof spirit a time after becomes a solid gelatinous mass. The reason of

this change has puzzled chemists for many years, and it is only during the past year that my friend Mr. Edmund White, of St. Thomas' Hospital, who undertook in 1900, at my request, the investigation of the cause, was able to ascertain definitely that this gelatinisation was due to the action of an oxydase or oxidising ferment.

Most vegetable substances even after drying on a water bath or in the sun or by artificial heat, reabsorb about 12 per cent. of moisture, and in the case of leaves, only by this means retain a certain amount of flexibility. If kept absolutely, *i.e.* chemically, dry, they become brittle. Leaves and fruits rapidly lose their colour in a museum of drugs, and it occurred to me that as ordinary ferments can apparently act only in the presence of moisture it might be possible to retain the colours by keeping them absolutely free from moisture when once dried. I therefore adopted the plan of placing carefully dried leaves in bottles, placing at the top of the bottle a lump of quicklime on a piece of brown paper, and then fastening down the stopper with vaseline, leaving the specimen for about a fortnight, and then removing the lime and refastening the stopper so as to exclude air. In this way the leaves retain their natural form without becoming broken and the colour remains just the same as when first dried. The specimens exhibited have been kept in full daylight for the last two years after being treated as above explained. If the 12 per cent. of moisture had not been removed by the aid of lime they would already have become of a yellowish tint and have required renewal.

Most of the oxydases appear to be of an albuminous nature, and in liquids such as tinctures it has been shown by Mr. White that boiling destroys or coagulates the ferment, but in solid substances it is not so easily destroyed, as the substance requires to be exposed to a temperature of  $212^{\circ}$  F. for some hours in order to render the ferment inactive. The amount of moisture necessary for the action of some ferments appears to vary, since in mustard and cherry-laurel leaves, in the ferment, which causes the formation of oil of mustard in the one case, and oil of bitter almonds and hydrocyanic acid in the other, does not act if the leaves or seeds are first dried and powdered, but only when the ferment, which is contained in

cells distinct from those containing the substance on which it acts, is brought into actual contact with moisture. Thus dry powdered mustard has no odour until brought into contact with water, and laurel leaves unless crushed when fresh and moist are useless for killing insects, the hydrocyanic acid only being developed in this way.

The gradual change that takes place in wines, and that in red wines leads to the deposit of the colouring matter in an oxidised state, is apparently due to the slow action of oxydases, and might possibly be prevented by boiling before bottling; but this is a matter that does not greatly concern curators who are not usually the possessors of valuable wine cellars.

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The PRESIDENT said this paper formed an agreeable diversity to their ordinary contributions. It showed the great value of the knowledge of chemical science and science generally to the curator. Changes of colour took place not only in plants but in all manner of objects, and it was exceedingly probable that the changes of colour which took place in textiles and so forth were due to some such processes as those Mr. Holmes had just described.

Professor CARR, Nottingham, expressed admiration of the paper, and said Mr. Holmes' specimens were infinitely preferable to those usually seen in museums.

Mr. J. MACLAUCHLAN, Dundee, said he had listened with very great pleasure to Mr. Holmes' very able paper. Mr. Holmes would be one of the greatest benefactors if he could show them a plan whereby the colours in the binding of books, and also of paintings, could be preserved.

The PRESIDENT thought the specimens did not quite correspond to the flattering description given by Professor Carr. They were distinctly dry, but they were brittle. Now, what a curator very often wanted in mounting his cases for public exhibition was a plant, with or without a flower, which should have not only natural colour, but also a certain amount of flexibility. If they had that flexibility they fell into very much more natural forms. Some one—a German, he thought—had invented a method which he had kept a profound secret, of colouring the foliage and yet preserving its flexibility. There, he believed, artificial colouring was used, but he thought they might find some means of preserving not only the original colour, but also the natural flexibility.

Councillor J. A. WATSON, Sheffield, gave his experience of preserving flowers with hot sand and paraffin wax, and said he was trying an experiment which he thought would be successful if he had sufficient time to follow it out.

Mr. HOLMES in reply said that Mr. Watson's remarks concerning the use of paraffin were exceedingly interesting. Of course it was important to preserve the natural form of the plant, and that could be done by the well-known process of drying in hot sand. The subsequent dipping in paraffin wax to prevent brittleness was a great improvement. He thought that the excess of wax left on the surface of the plant could be removed by brushing over with benzol or other solvent of paraffin.

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## Museum Publication.

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### ANNALS OF THE SOUTH AFRICAN MUSEUM.

We have received further parts of this publication. One of them, by Mr. W. L. Distant, is described as Volume III., Part II., III.—Rhynchotal Miscellanea (Second Series). Part I.—Rhynchota from the Transvaal, Mashonaland, and British Nyasaland. Part II.—Descriptions of various Ethiopian species. The collectors include Mr. G. A. K. Marshall and Dr. Percy Rendall, but as usual we are left in great uncertainty as to the present whereabouts of the type-specimens of many of the new species. Of these there are thirty in addition to several new varieties, but not a single figure is given. Another paper, by G. A. Boulenger, entitled "Descriptions of six new Perciform Fishes from the Coast of Natal," gives a plate in illustration of each species, and states that the specimens figured have been presented to the British Museum, along with many others, by Mr. J. F. Quekett, curator of the Durban Museum.

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## General Notes.

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### AT HOME.

L. WRAY, I.S.O.—We are pleased to be able to congratulate another museum official on Imperial recognition. Mr. Wray, of the Museum, Perak, who has been in England for some months, and who attended the two last conferences of the Association, has been appointed a companion of the Imperial Service Order. Mr. Wray returns to the Perak museum at the end of November.



THE NATIONAL GALLERY, IRELAND.—Mr. Hugh P. Lane has been appointed to the post of governor and guardian of this gallery, rendered vacant through the death of the late Viscount de Vesci.

RESIGNATION OF THE CURATOR OF THE WALKER ART GALLERY, LIVERPOOL.—At the meeting of the committee of this gallery on Oct. 1, the chairman, Sir William Forwood, announced that he had received a letter from the curator, Mr. Charles Dyall, tendering his resignation. Sir William said Mr. Dyall had been associated with the art gallery since it was instituted some twenty-six years ago, and he was quite sure that the success of the permanent collection and the autumn exhibitions were largely due to his industry and artistic knowledge. Mr. Dyall was now about seventy-three years of age, and of late he had felt that his strength was no longer equal to the work. His resignation would, however, mean a great loss to the institution.

MEMOIR OF SIR WILLIAM FLOWER.—Messrs. Macmillan announce the early publication of a memoir of the late Sir William Flower, director of the Natural History Departments of the British Museum, written by Mr. C. J. Cornish. Flower enjoyed the friendship of many men eminent in science, literature, art, politics, and theology, and his correspondence embraced a very varied selection of subjects. He preserved many of the letters received by him, and in the forthcoming memoir some of these will doubtless appear. Among those with whom Flower corresponded were Huxley and Dean Stanley, with both of whom he was on very intimate terms, Darwin, Tennyson, Mivart, Leighton, and the late Sir James Paget. He was, moreover, the recognised authority in this country on questions connected with museum management; and his opinions thereon should furnish reading of special moment to the increasing number of those who take an interest in such matters.

THE BRITISH MUSEUM.—The collection of Babylonian tablets has recently been enriched by a series of over 2050 tablets from Lower Babylonia, of the period of the second dynasty of Ur, about 2500 B.C. These tablets contain inscriptions written in the ancient Sumerian language, and relate chiefly to agricultural returns, landed property, &c., of the great temples in Southern Babylonia. The excavations at the Mound of Nebbi Junus (Jonah), near Mossul, which the museum authorities have been conducting during the past year, have yielded results sufficiently satisfactory to make it worth while to continue the operations in the ensuing season, a special permit for the purpose having been

granted by the Sultan. The Germans and Americans are also carrying on excavations in Asia Minor, the former having a concession to work at the ruins of ancient Babylon. The second expedition of Messrs. Baldwin Spencer and Gillen for the purpose of studying the customs and folklore of the tribes of Central Australia has yielded good results, and a number of objects of great interest obtained by these travellers have been presented to the national collection. These may be divided into three groups—tools and weapons, articles of dress and ornaments, and objects connected with ceremonial observances and magic rites. The use of stone knives still lingers among the natives, and examples are shown, as also stone axes hafted by means of resin and twine, or with the flake inserted into a cleft in the handle. But the manufacture of the axes and hatchets has died out owing to the fact that iron tomahawks may easily be obtained by bartering with traders. All the types of spear-throwers are represented, notably the leaf-shaped form, known as *amera*, with a flint flake attached by resin at one end to serve as a cutting implement. The concave side is used as a basin; and it is this form of spear-thrower which is rubbed on a shield by the natives to obtain fire. Spears of every type may be found here, from the simple pointed shaft of hard wood, through intermediate stages to the light shaft with a head of hard wood cut into barbs on one side or on both, and held in place by resin whipped with tendons or vegetable fibre. Among the boomerangs the “beaked” or “swan-neck” form is represented. This weapon has an adze-like appearance, and Messrs. Spencer and Gillen have suggested that this is of set purpose, in order to emphasise the idea of there being a “head,” something like that of the stone axes. Beaked boomerangs are used in hand-to-hand encounters in the fashion of a battle-axe, the long curved part serving as a handle, and the projecting beak is then the part with which a wound is inflicted. A band for the waist, another for the forehead, and a large tassel serving the purpose of a loin-band, are all the clothing used by the male natives of Central Australia; and for women the tassel is replaced by an apron. The waistband is made of human hair woven together; the tassel, apron, and forehead-band (strictly speaking, an ornament) are composed of little strips of fur. There are necklaces of the seeds of the bean-tree, and one of kangaroo teeth, fastened by resin to short strings attached to a double cord. A peculiar ornament of the men of some tribes is a pad of emu feathers worn on the back of the head, whence some writers have called it a chignon. It is fastened on partly by fur string and partly by bone pins. The articles of

dress are generally reddened with ochre; some of the ornaments have stripes and bands of white; and black and white tail-tips of the rabbit-kangaroo are suspended from the waist-band. The nose ornaments shown are of interest. Some of them are made from the small bone of the leg of the kangaroo, and others from the small bone of the wing of the eagle-hawk. Objects used in magic rights are numerous. The *ililika* is a kind of knot of about 50 strands of string made from vegetable fibre. Most of the men carry one in their wallet. The sight of it strikes terror into a native woman who has offended the man owning this magic weapon; and a blow from it is believed to cause lifelong suffering, and even death.

Mr. David Hanbury has presented a small collection of Eskimo tools and weapons, made during a recent visit to Arctic America, between Ogden Bay and the Coppermine River. This has been placed in one of the wall-cases. It contains some very fine examples of knives, in which the native copper obtained in Bathurst Inlet has been utilised for blades, and the hafting in bone handles, often fastened with copper studs, displays skilful workmanship. A good many arrows, made of drift wood, the only material obtainable, have heads of greenstone; and there is a bow, which is strengthened by bands of sinew. Mr. Hanbury obtained a number of toy models of tools and utensils, carved in ivory, such as thimbles, lamps, and stoves, and also brought home a pretty complete outfit of implements employed by the natives in capturing salmon in the Coppermine River. There are hooks of all sizes and shapes, and a novel form of gaff used for taking fish in the rapids. It consists of a large hook, with curved bone shank, in which are set two long sharp pieces of copper, one above the other. Another point well illustrated is the ingenious way in which the Eskimos utilise bone for artificial bait. The collection is a welcome supplement to that presented by Mr. Hanbury in 1900, among which were two kayaks and a number of reindeer dresses.

BRITISH MUSEUM (NAT. HIST.).—An interesting collection made by the Earl of Crawford during his recent cruise in the s.s. *Valhalla* has been presented by him. The *Valhalla* had a naturalist on board—Mr. J. Nicoll—and at most of the out-of-the-way places where the yacht touched, he landed for the purpose of getting specimens. The collection consists of about 250 birds, a series of eggs, two or three tanks containing reptiles and fishes preserved in spirit, and a large number of butterflies, beetles, and other insects. Perhaps the most interesting and important objects, from a scientific point of view, are several skeletons, including a series of skulls, of the natives of Easter Island.

The importance attached to mosquitoes in relation to diseases has caused a close study to be made of their habits, and large collections of them to be formed. The British Museum (Natural History) has of late received numerous collections, by means of which, as well as of enlarged models, the officials have been able to give valuable information, not only to the medical profession, but also to the public. The insect has now been proved, mainly by the discovery of Dr. Finlay, to be responsible for yellow fever, and Professor Ray Lankester points out in his official report that the not far distant opening of the Panama Canal, and the consequent direct and rapid communication between the yellow fever districts and the East and our Australian colonies, makes it essential that all possible information should be collected regarding the species and geographical distribution of the mosquito connected with yellow fever.

POPULAR MYTHS ON NATURAL HISTORY.—Most curators will sympathise with Dr. R. Bowdler Sharpe in the following protest which he contributed to *The Times*:—"In common with many other zoologists, I have been somewhat concerned to see the avidity with which certain journals in this country publish broadcast myths connected with natural history, and the credulity with which nonsensical paragraphs of this kind are received by the public. The myth most in vogue in the spring-time is the one that the British Museum is in want of a kingfisher's nest, and has offered a reward of £100 to anybody who will procure one for the national collection. This fable dies hard, and causes me much loss of time every spring in assuring well-meaning collectors that the British Museum has long ago acquired as many kingfisher's nests as it wants. On a par with this foolish myth is another which is now being exploited—viz., the story that a well-known entomologist has paid £1,000 for a specimen of a flea! The journals which print, and the folks who read, this nonsense must surely know that it is untrue. The fleas and mosquitoes are both families of insects extremely difficult to study. We know the mischief which is done by mosquitoes in the case of malaria, and the report of the Plague Commission shows that fleas play no unimportant part in the dissemination of disease. To make a collection of these noxious insects is a tedious and difficult matter, but they have to be studied and monographed like butterflies and the higher orders. It is, therefore, annoying to zoologists to find mendacious statements published broadcast which are calculated to bring into ridicule the earnest work which is being carried on by entomologists who devote themselves to the study of these difficult groups. I have heard of one instance when a new and curious genus of

*Pulicidæ* was valued at 10s., but, as a rule, the sum of 3d. or 6d. is considered sufficient value by museums for any specimen of fleas obtained from animals in any part of the world. There is a considerable difference between sixpence and a thousand pounds, and it may be considered that the exposure of such a palpable untruth is not worth the time that it takes to expose it: but the reiteration of the myth in responsible journals, and the credulity of the public, as shown by the correspondence on the subject, makes it desirable to give publicity to the true facts of the case."

THE MANCHESTER MUSEUM, OWENS COLLEGE.—A new and commendable custom was inaugurated at this museum at the end of September when the subscribers and friends were shown a large number of specimens recently added to the museum. The committee had issued special cards of invitation for the afternoon of Wednesday, September 30th, when specimens recently acquired by the museum were exhibited. At the gathering Professor Boyd Dawkins, in a very lucid, short address, pointed out the special interest of the mammalian remains obtained from a cave of the Pleiocene period at Doveholes, and of an exhibit of Neolithic implements collected on the Pennine range; and Mr. W. E. Hoyle, the director of the museum, spoke particularly of some of the new zoological specimens. Both Mr. Hoyle and Mr. Cosmo Melvill, the chairman of the museum committee, dwelt on the museum's need for further funds for the proper housing and exhibition of its fast-increasing treasures. Towards a sum of £1,000 urgently required for immediate use, £400 has, we understand, been already offered. The need for the rest is very great.

PERMANENT COLLECTIONS AND EXHIBITIONS.—At the opening of the Autumn Exhibition of pictures in the Walker Art Gallery, Liverpool, the chairman referred to the great disturbance it caused to the permanent gallery. Valuable pictures had to be taken down and stowed out of sight, and when they considered that something like 1500 people visited the permanent gallery every day, it was a matter for very great regret that so large a number had to be withdrawn from their view. It was very important that they should consider the question of enlarging the permanent gallery and making it absolutely independent of the autumn exhibition. Students of art and lovers of pictures generally must often have experienced disappointment on visiting an art gallery to find that the permanent collection, or part of it had been removed to make room for a temporary show, oftentimes, as in the case of Liverpool, chiefly for the purpose of selling pictures. It is satisfactory to find that the chairman of an important

art gallery like that at Liverpool has realised the disadvantage to the public of this arrangement; and it may also be pointed out that donors of pictures are not likely to be incited to generosity when they find that gifts are thus coolly relegated to oblivion for a large part of the year.

**COPYISTS IN ART GALLERIES.**—The *Magazine of Art* protests against the strong complaints that have been made against the presence of copyists at the National Galleries, and points out that these galleries were founded not only for the pleasure of the citizen but as places of education wherein students, copying, improve their own abilities or might spread the love of pictures, and so indirectly do service to the greater public and to the art of England. But those who made the "strong complaints" that have appeared in the *Morning Post* and elsewhere may question whether many, if any, of the ladies and gentlemen who monopolise the galleries with their canvases two days a week are legitimate students at all. An inquiry into the matter would probably reveal that most of them are either amateurs incapable of doing anything but copying, to whom the galleries are comfortable and convenient places in which to play at being painters, or professional copyists who make a living by disposing of their efforts to provincial or colonial visitors. How many serious students nowadays believe in or practice copying as a means of education? Even the conservative Academy has within the last few years abolished the medal that was formerly given annually for the best copy of an old master. It is surely not worth while closing the National Gallery (except to those who pay) on two days a week in order that a number of amateurs may travesty noble works and a few professionals earn their living by making copies. Even if some sort of excuse could be made for abandoning the National Gallery to the copyist for a third of the week there can be none for closing the Victoria and Albert Museum and the Tate and Wallace Galleries on "students' days." Each should be open to the public without charge all day and every day.

**NATIONAL ART COLLECTIONS FUND.**—Societies exist in Paris and Berlin with the object of presenting pictures and other works of art to the national collections. Some such organisation is needed in this country to meet the severe and increasing competition of private collectors and public institutions, both in Europe and America. A provisional body has been formed to promote this object in the United Kingdom. A meeting will be held during the autumn, when definite proposals will be made, and supporters of the movement will be invited to nominate a council and an executive committee. The scheme has received sympathetic encouragement from

the heads of national collections. Broadly speaking, the proposal is to enrol as many members as possible by whom an annual subscription of one guinea will be paid. It is anticipated, however, that members may be willing to contribute donations in proportion to their interest and means; and it will be from these sums that the bulk of purchases will be made. Such donations may be allocated to any of three separate funds:—(1) For ancient pictures and drawings, (2) for other ancient works of art, (3) for modern works of art. The executive will appoint purchasing committees, in whom a certain discretion will be vested. From time to time it may be found necessary to issue appeals, inviting contributions towards the acquisition of objects of unusual importance. It is hoped that the fund may become a further channel through which gifts, bequests, and memorial presentations may be made to the national collections. The difficulties and delays caused through large committees having to sanction the purchase of any single work of art—which of course may be offered for sale at short notice and in some foreign country—have led those who are responsible for this scheme to provide that the purchasing committees shall appoint honorary buyers, to whom the maximum of discretion will be delegated. Among those who have already expressed interest in and sympathy with the movement are the Marquis of Lansdowne, the Marquis of Londonderry, the Earl of Crawford, Viscount Peel (chairman of the trustees of the National Portrait Gallery), Viscount Knutsford (trustee of the National Portrait Gallery), Lord Windsor (First Commissioner of Works), Lord Avebury, Lord Aldenham, the Bishop of Rochester, Lord Balcarras, M.P., Sir E. J. Poynter, P.R.A., Sir J. Stirling-Maxwell, M.P., Sir L. Alma-Tadema, R.A., Sir W. B. Richmond, R.A., the Speaker of the House of Commons, Sir A. Henderson, M.P., Mr. J. Morley, M.P. (trustee of the British Museum), Mr. Bryce, M.P., Sir F. Mowatt, Sir Hubert Parry, Mr. E. W. Beckett, M.P. (treasurer, *pro tem.*), Sir C. Purdon Clarke (director of the Art Museum, Victoria and Albert Museum), Mr. Lionel Cust (director of the National Portrait Gallery), Sir J. Evans (trustee of the British Museum), Lord E. Fitzmaurice, M.P. (trustee of the National Portrait Gallery), Mr. W. E. H. Lecky, Sir W. H. Tate, Sir E. Maunde Thompson, Sir E. A. Waterlow, R.A., Mr. Humphry Ward, and Mr. Isidore Spielmann and Mr. R. C. Witt (hon. secretaries, *pro tem.*).

LEICESTER ART GALLERY.—By the will of Miss Louisa Dudgeon, of Leicester, who died on October 1st, 1902, this gallery has recently acquired a large and interesting series of engravings, over 1,000 in number, of which nearly 200 are now

framed and exhibited in the museum lecture hall. The collection mainly consists of engravings and mezzotints, some few of which are coloured, and a number of drawings ascribed to Cox, Prout, De Wint, and Turner, and some others of less merit. The terms of the bequest are that the mayor, aldermen, and burgesses of the borough of Leicester shall within ten years from the death of the deceased provide a separate room in the Art Gallery of the said borough, in which shall be exhibited the above collection of engravings, to be entitled the Dudgeon Collection, and in default of so doing then such bequest shall be null and void, and the same shall be returned to the executors of the deceased or their representatives.

**BEQUEST TO THE LIVERPOOL MUSEUM.**—The late Mrs. Sarah Stopford, of 73, Onslow Square, London, has bequeathed to this museum her coins, pictures, statuary, &c.

**GIFT TO ALBERT INSTITUTE, DUNDEE**—John Morris, parish schoolmaster, the Mains, who died in February, 1896, bequeathed the residue of his estate as a capital fund the interest of which should be applied in the purchase of pictures to be hung on the walls of the Dundee Art Gallery. Recently two oil paintings have thus been purchased; they are "The Home Squadron," by John R. Reid, 56 in. by 66 in.; and "The Mysteries," by Stewart Carmichael, 53 in. by 43 in.

**A DICKENS MUSEUM.**—The Corporation of Portsmouth has purchased the birthplace of Charles Dickens, No. 393, Commercial Road, Portsmouth, for the sum of £1,125, and it is intended to convert it into a Dickens Museum. Those who are in possession of objects of interest connected with Dickens, and who may feel inclined either to lend or present them to the museum, are requested to communicate with Alderman F. Power, Chairman of the Museum Committee, Town Hall, Portsmouth.

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#### ABROAD.

**OBITUARY.**—*Science* announces the death of Dr. John Elfreth Watkins, for many years curator of mechanical technology and superintendent of buildings in the U.S. National Museum. He was the founder of the collection of transportation and of the history of invention now in that museum, and was also the organiser of the department of industrial arts in the Field Columbian Museum.

We regret to learn of the death of Dr. A. Radcliffe Grote on September 12th. Dr. Grote, who was well known for his careful work on Lepidoptera, carried out by a novel method, had for many years been settled at the



Roemer Museum, Hildesheim, where he had arranged the collections of insects, the public exhibit being particularly attractive.

THE HUGO MUSEUM, PARIS.—After several postponements, the house in the historic Place des Vosges, Paris, which was the home of Victor Hugo for eighteen years, and where he wrote many of his masterpieces, was opened to the public in June, as a Memorial Museum, previously referred to in the *Journal*, vol. 2, p. 190 and p. 293. Mr. Paul Meurice, the poet's relative and literary executor, has been chiefly responsible for the wonderful collection of articles associated with Victor Hugo's life and works, and for their arrangement, and has done his work admirably. Though the poet occupied only the apartment on the second floor, the whole of the three storeys of the house have been utilised for the museum, and even the wide staircase is hung with numerous drawings which served to illustrate the author's works, or interesting theatrical posters dealing with his various productions. The place of honour on the first floor is given to a collection of pictures relating to the poet's works. In an adjoining room are the library, and a reproduction of the simple bedroom in which he died in the Avenue D'Eylau, whilst on the second floor are displayed the master's drawings and other artistic compositions, and also the extraordinary collection of wood carvings which Victor Hugo executed at Guernsey during his exile. In the bedroom the small painting which Mr. Bonnat executed for Mr. Georges Hugo after the poet's death, hangs on one of the walls, and there stands in a corner of the room the curious tall desk at which he used to stand and write. In the large room on the first floor are pictures representing all the poet's triumphs, and notably Besnard's canvas illustrating the fight which took place at the Comédie Française, after the production of *Hernani*, between the rival factions of the romantic and classical schools. Here are also several portraits and busts of the poet at various periods of his life, including that of David d'Angers, which stands at the end of the room.

MUSÉE Océanographique de Monaco.—Dr. J. Richard contributes to the *Bulletin de la Société Zoologique de France*, vol. xxviii, pp. 57-62, a paper on the present state of this museum and on the works that are being carried on there.

AMERICAN MUSEUMS.—Dr. Alfred G. Mayer, director of the museum of the Brooklyn Institute contributes to the *North American Review* an article on "The Educational Efficiency of our [*i.e.* American] Museums."



# **BOTANICAL SPECIMENS**

## **FOR MUSEUMS.**

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**CONES OF RARE CONIFERS.**  
**INFLORESCENCES OF CYCADS,**  
CYCAS, ZAMIA, MACROZAMIA,  
CERATIZAMIA, STANGERIA, ENCEPHALART  
MALE AND FEMALE.

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**SECTIONS OF BRITISH AND OTHER TIMBER**  
**SPECIMENS FROM THE TROPICS.**  
**SPECIMENS IN ALCOHOL and other media**

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## **Models of British Fungi**

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**ECOLOGICAL SPECIMENS.**

**ANATOMICAL SPECIMENS.**

**HERBARIUM SPECIMENS.**

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**Insectivorous and Parasitic Plants**  
**SETS ILLUSTRATING ECONOMIC PRODUCTS**  
**PATHOLOGICAL SPECIMENS.**  
**FOR PARTICULARS SEND FOR SPECIAL PRICE LIST**

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**YORK**

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## DUDLEY.

### Dudley and Midland Geological Society's Museum.

**Governing Body.**—Trustees.

**Staff.**—A curator.

**Source of Income.**—Subscription Fund of the Dudley and Midland Geological Society.

**Nature of Collections.**—Fossils and minerals, especially strong in local coal measure and Wenlock limestone fossils.

**Times and Terms of Admission.**—Open free on application.

**Loan of Collections.**—Specimens are not lent out.

**Publications.**—Transactions of the Dudley and Midland Geological Society.

**Curator.**—WM. MADELEY.

## GALWAY.

### The Museum of Queen's College, Galway.

**Governing Body.**—The governing body of Queen's College.

**Staff.**—A Curator and a Préparateur (see paragraph 9).

**Source of Income.**—A portion of the annual parliamentary grant to the college is spent on the museum. The entire sum thus allocated is used in the purchase of specimens or other museum requisites.

**Nature of Collections.**—I. ZOOLOGICAL, including stuffed animals, a series of dis-articulated skulls, vertebrates and invertebrates in spirits, dried specimens of invertebrates and small vertebrates, papier maché models of animals, Blaschka's glass models of invertebrates, injected preparations (chiefly by Fric of Prague), a collection of cetacean skeletons, models of "pre-historic" animals. II. BOTANICAL: A herbarium, which contains a section intended specially to illustrate the flora of the coal period. III. GEOLOGICAL: Collections of fossils (one composed exclusively of Galway fossils), globes, geological maps and relief maps. IV. MINERALOGICAL: General collection of minerals and collection of Galway minerals. V. ANTHROPOLOGICAL: Casts and models of "pre-historic" remains. VI. ART: A small collection, chiefly of models and photographs. A microscope, with rotating platform, is used for the exhibition of specimens.

**Special Collection.**—Dr. W. King's collection of Galway minerals.

**Times and Terms of Admission.**—Open almost daily during the college session. Admission free.

**Number of Visitors.**—Unknown.

**Lectures.**—Public lectures, illustrated by museum specimens, are sometimes delivered under the auspices of the College Literary and Scientific Society. In addition to these, lectures and demonstrations are given in the museum to students who have entered for one or more of the courses on natural history.

**Loan of Collections.**—Specimens are sometimes lent to experts.

**Income and Working Expenses.**—A sum of £100 (more or less) is voted annually for the purchase of specimens. The Professor who acts as curator is paid by the State out of the endowment fund.

**Exhibition Space.**—Two large museum halls and the vestibule and staircase are set apart for specimens exhibited to the general public. Other rooms may be opened for those who take a special interest in the work of any department.

**Publications.**—No special museum publications. Occasional contributions appear in the science journals from the museum and biological laboratory.

**General Information.**—Although the museum is primarily intended for the use of students, it is also arranged for the general visitor, and especially the young.

**Curator.**—Professor RICHARD JOHN ANDERSON, M.A., M.D., M.R.C.S., F.L.S.

**GLASTONBURY.****Museum of the Glastonbury Antiquarian Society.**

**Governing Body.**—The committee of the Antiquarian Society.

**Staff.**—A curator, three hon. secretaries, president, and vice-president.

**Source of Income.**—Voluntary subscriptions,

**Nature of Collections.**—Miscellaneous, including relics from a British lake village near Glastonbury.

**Times and Terms of Admission.**—Open daily 10 a.m. to 6 p.m. Admission four pence.

**Number of Visitors.**—2000 during 1902.

**Lectures.**—Public lectures are occasionally given.

**Income and Working Expenses.**—Income for 1902, £85. 2s. od.; expenditure, £03 17s. 3d.

**Exhibition Space.**—Two rooms in the Town Hall.

**Publications.**—(i.) Annual Report of the Glastonbury Antiquarian Society; (ii.) "The British Lake Village;" (iii.) Series of Papers and Sketches, 1886.

**Curator.**—CHARLES CAMPBELL.

## GLOUCESTER.

### Municipal Museum.

**Governing Body.**—Museum Committee of the Gloucester Corporation.

**Staff.**—A curator and one attendant.

**Source of Income.**—Municipal rates (special grants are made by the City Council).

**Nature of Collections.**—(1) Archæology (mainly Roman remains from Gloucestershire; (2) Natural History. There is also a loan collection from the Board of Education.

**Special Collections.**—(1) The John Bellows Collection of Roman remains found in Gloucester; (2) Birdlip Collection of late Celtic objects; (3) Playne Collection of flint implements from the Cotswolds; (4) Jones Collection of Gloucestershire Jurassic fossils; (5) Guise Collection of Gloucestershire land and fresh water shells; (6) Barwick-Baker Collection of birds.

**Times and Terms of Admission.**—Open daily (except Sundays), 11 a.m. to 5 p.m.; on Thursdays, 11 a.m. to 9 p.m. Admission free.

**General Information.**—The museum, which is now in the Price Memorial Hall, Municipal Buildings, was re-opened January, 1903.

**Curator.**—GILBERT H. DUTTON, B.Sc., F.G.S.

**GRANTHAM.****Museum of the Grantham Scientific Society.**

**Governing Body.**—Committee of the Grantham Scientific Society.

**Staff.**—Two curators.

**Source of Income.**—Subscriptions from members of the Grantham Scientific Society.

**Nature of Collections.**—(1) Geological mainly, (2) Entomological, (3) Botanical, (4) General Natural History, (5) Roman remains found at Saltersford, near Grantham.

**Times and Terms of Admission.**—Admission free on application to curators.

**General Information.**—A small museum. The specimens contained in it are the property of members or friends of the Grantham Scientific Society. The collections are mainly of a local character, and are very incomplete.

**Curators.**—H. PRESTON, F.G.S., and H. W. ELSDON, Ph.D.



**GRIMSBY.****Natural History Museum of the Grimsby and District Naturalists' Society.**

**Governing Body.**—Committee of six members and officers of the Naturalists' Society.

**Staff.**—One curator.

**Source of Income.**—Subscriptions of members, occasional grants from the Corporation, and proceeds of lectures.

**Nature of Collections.**—Chiefly local Natural History. The most notable collections are :—(1) Lincolnshire spiders ; (2) Plants of the district ; (3) Marine zoology of coast.

**Times and Terms of Admission.**—Tuesday, 8 p.m. to 10 p.m. Admission free.

**Number of Visitors.**—About 200, exclusive of members.

**Lectures.**—Several are given during the winter session.

**Exhibition Space.**—One large room, to which are attached committee-room and library.

**Publications** —Occasional pamphlets on natural history.

**General Information.**—The rooms mentioned above (which are in the Municipal Buildings) are lent to the Naturalists' Society. The collections would form an excellent nucleus for a public museum, and a small rate would suffice to put it into working order. The committee has had to refuse many good specimens and whole collections for want of space. Grimsby is a town of 70,000 inhabitants, and as the greatest fishing port in the kingdom, it has splendid opportunities of getting a fine collection of marine objects. It is sincerely to be hoped that the county borough council will make such endowment as may secure for Grimsby a museum worthy of the town.

**Curator.**—ARTHUR SMITH, F.L.S., F.E.S.

## GUILDFORD.

## Surrey Archæological Museum.

**Governing Body.**—The Council of the Society.

**Staff.**—A curator, who also acts as librarian

**Source of Income.**—Members' subscriptions (10/-), and entrance fee of 10/-, and the interest on a small sum invested in consols

**Nature of Collections.**—Chiefly archæological, especially strong in local flint implements.

**Times and Terms of Admission.**—Open 10 a.m. to 4 p.m. Admission 3d. Free on Wednesdays after 12 noon.

**Number of Visitors.**—380 last year.

**Income and Working Expenses.**—Receipts for 1902, about £355; expenditure, about £248.

**Exhibition Space.**—Three large rooms, two on ground floor and larger one above.

**Publications.**—An Annual Report. In addition, one volume of the "Surrey Archæological Collections" is published annually. The 17th volume has recently appeared. An extra volume, "A Calendar of the Feet of Fines relating to the County of Surrey, from Richard I. to Henry VII.," has been published.

**General Information.**—The Surrey Archæological Society was founded in 1854, for the purpose of collecting and publishing information in all the various branches of archæology relating to the county. The society is constantly making additions to its library and museum. These additions are in great part the result of explorations carried on by the society, such as that now being conducted at Waverley.

**Curator and Librarian.**—FREDERICK H. ELSLEY.

**HANLEY.****The North Staffordshire Technical, Art, and Industrial Museum.**

**Governing Body.**—The Town Council.

**Staff.**—An honorary director, a curator, one assistant, and one caretaker.

**Source of Income.**—Local taxation, customs and excise duties.

**Nature of Collections.**—(1) Paintings, oil and water-colour ; (2) Staffordshire and other pottery ; (3) Minerals ; (4) Fossils ; (5) Birds ; (6) British Lepidoptera ; (7) Working models ; (8) Loan collection from the Board of Education ; (9) Collection of Turner drawings lent by the National Gallery ; (10) Early Egyptian pottery, presented by Dr. W. Flinders Petrie.

**Times and Terms of Admission.**—On Mondays, Thursdays, and Saturdays, 10 a.m. to 9 p.m. ; on Tuesdays, Wednesdays, and Fridays, 10 a.m. to dusk. Admission free.

**Number of Visitors.**—28,550 in 1902.

**Income and Working Expenses.**—In 1902 the income was £588 19s. 9d., and expenditure £588 19s. 9d.

**Exhibition Space.**—Total, 528 square yards ; of this, 378 square yards devoted to art, 54 square yards to models, and 96 square yards (gallery in course of preparation) to natural history.

**General Information.**—Founded by the North Staffordshire Chamber of Commerce, and opened November 6, 1890 ; transferred to the Hanley Corporation, July 1, 1891.

**Curator.**—FRANK STALEY.

**HARROGATE.**

A small collection of various objects has been got together by Mr. Wheatear, and is at present exhibited in the Winter Garden, Royal Bath. Mr. Wheatear has appealed to the Corporation for help to enable him to develop this into a municipal museum, but so far without success.

## HASLEMERE.

### Haslemere Educational Museum.

**Staff.**—A Curator and a Librarian.

**Nature of Collections.**—Type collections in Zoology, Botany, Geology, Mineralogy, and Ethnology, for educational purposes. The geological and historical galleries are arranged on the "space-for-time" method. There is a large collection of skulls, including one of a single-tusked Indian elephant.

**Times and Terms of Admission.**—On week-days, 10 a.m. to 1 p.m., and 2 p.m. to dusk : Sundays, 2 p.m. to 4.30 p.m. Admission free.

**Number of Visitors.**—About 15,000 annually, including those who attend lectures and use the library.

**Lectures.**—These are given on Sunday afternoons, during summer, in connection with the Haslemere Natural History Society. Children's classes are held two or three times a week throughout the year.

**Loan of Collections, &c.**—Natural history specimens are frequently lent to schools, and occasionally pictures are lent from the library.

**Exhibition Space.**—Gallery for history and general natural history, 74 ft.  $\times$  36 ft. ; gallery for geology, 70 ft.  $\times$  12 ft. ; Vivarium, 26 ft.  $\times$  12 ft. library, 120 ft.  $\times$  16 ft.

**Publications.**—The "Home University," edited by Mr. Hutchinson, and "The Centuries." The latter was written for use in connection with the "space-for-time" historical schedule. The museum has also issued a series of educational labels.

**General Information.**—The museum was built by Mr. Jonathan Hutchinson, F.R.S., LL.D., in 1894. The library was added a year or two later. The buildings are of wood, and were erected at slight cost. The collection, have been enriched by several valuable gifts. In 1898 the Haslemere Natural History Society handed over all its specimens to the museum. A full description of the institution may be found in the Government Educational Reports for 1898.

**Curator.**—E. W. SWANTON.

## HASTINGS.

**The Hastings and St. Leonards Museum and Art Gallery.**

**Governing Body.**—The General Committee of the Hastings and St. Leonards Museum Association, of whom a certain number are members of the Town Council, specially elected to represent that council. The Mayor is *ex officio* chairman.

**Staff.**—There is no curator. The collections are under the care of a "Specimens Committee," a body of specialists each of whom—with the assistance of a consulting partner—undertakes one or more departments of science or art.

**Source of Income.**—Annual subscriptions and donations, and occasional grants from the Board of Education, under the usual conditions.

**Nature of Collections.**—I. ART, including water-colours and drawings, many of them illustrating old Hastings, and a loan exhibition from South Kensington. II. NATURAL HISTORY, including zoological, geological, and mineralogical collections. III. ARCHÆOLOGY, including local antiquities and historical relics. IV. ETHNOLOGY.

**Special Collections.**—Chard Collection of Cypriote pottery and glass; Felix Joseph Collection of British ceramics; Abbott Collection of remains from Hastings kitchen middens and of Pleistocene fossils; Rufford Collection of local sponges, Hydrozoa, and Polyzoa; Rufford and Beckles Collection of Wealden fossils; Morgan Collection of corals.

**Times and Terms of Admission.**—Open daily from 10 a.m. to 6 p.m.; on Wednesdays and Fridays to 9 p.m. Admission free.

**Number of Visitors.**—28,309 in 1902.

**Lectures.**—No public lectures are given. Papers are read at the fortnightly meetings of the Hastings Natural History Society during the winter months.

**Loan of Collections, &c.**—None are lent out, but they are used by students of the Municipal Science and Art Schools under special conditions. They are also used to illustrate the periodical demonstrations to local schools.

**HASTINGS** (*continued*).**The Hastings and St. Leonards Museum and Art Gallery** (*continued*).

**Income and Working Expenses.**—Since 1900 there has been an annual deficit of about £15. Subscriptions and donations amount to £90; expenses average £110.

**Exhibition Space.**—Total floor area, 2446 square feet; height of walls, 17ft. 7in. The museum and art gallery occupy the principal room on the first floor of the Brassey Institute, known as the "Assembly Room." This is divided into two parts by iron pillars. The front part is devoted to art; of the back part, one quarter is devoted to Board of Education exhibition and ethnology, and the remaining three-quarters to natural science.

**Publications.**—"British Hydroid Zoophytes, &c.," by the late P. J. Rufford (illustrated), edited by G. E. Connold, F.E.S. (most of the specimens herein described are in the Hastings Museum). Illustrated guides to some of the sections are already in the press, and it is intended guides shall be written for all sections. Reports of demonstrations to schools are published, and may be had of the hon. sec.

**General Information.**—The museum was opened to the public in 1892. Its initiation was largely due to the gift of a private museum by the Rev. J. W. Tottenham, M.A., who presented fifty cases containing specimens illustrating almost every department of natural history. Since then much generous assistance has been given to the institution. The Town Council provides free quarters, light, and fuel. Lord Brassey has proved himself a kind and useful friend. But in spite of all this, the institution is seriously hampered by want of funds, and much pecuniary help must be forthcoming if it is to continue the power for good that it has been during the past twelve years.

**Honorary Secretary.**—WILLIAM V. CRAKE, B.A.

**HAWICK.****The Hawick Museum.**

**Governing Body.**—Committee of the Hawick Archæological Society.

**Staff.**—A curator.

**Source of Income.**—Subscriptions from members, admission fees, and interest on small sum invested.

**Nature of Collections.**—Natural History and Archæology.

**Times and Terms of Admission.**—Saturdays, holidays, and monthly meetings of the society. Admission free for members, 2d. each for general public.

**Number of Visitors.**—In 1902, over 600, exclusive of members.

**Lectures.**—No public lectures. Papers are read at the monthly meetings of the society.

**Income and Working Expenses.**—Income for 1902, £41. 11s. 7d.; Expenses (total), £36. os. 10d

**Exhibition Space.**—A large well-lighted room in the Buccleuch Memorial Buildings, 50 ft. × 45 ft., with a gallery round three sides. Lighting, from three dome windows in the roof.

**Publications.**—"Transactions," published annually, price 2/6.

**General Information.**—The museum is overcrowded at present, but it is hoped that before long an extension of premises will be obtained.

**Hon. Secretary.**—J. JOHN VERNON.



**HAWORTH.****Brontë Museum.**

**Governing Body.**—Committee of the Brontë Society.

**Staff.**—One resident curator.

**Source of Income.**—Members' subscriptions and admission fees. The latter are sufficient to pay the expenses of the museum.

**Nature of Collections.**—Books, pamphlets, journals, transactions, manuscripts, photographs, drawings, &c., relating to the Brontë family.

**Times and Terms of Admission.**—Open daily in summer from 2 p.m. During the winter may be visited on application to the curator  
Admission 3d.

**Number of Visitors.**—About 3,000 every year.

**Lectures.**—None are given in the museum. Papers on matters connected with the Brontës are read before the society.

**Income and Working Expenses.**—Income in 1902, £31 2s. 3d.; expenses about £30.

**Exhibition Space.**—Two small rooms.

**Publications.**—Transactions of the Brontë Society.

**Curator.**—JOHN M. HELLIWELL.

## HEREFORD.

## Hereford Public Museum.

**Governing Body.**—A committee of the City Council.

**Staff.**—A curator and two assistants. The various departments of Botany, Geology, Entomology, Ornithology, and Archæology are under the care of honorary curators.

**Source of Income.**—Half of Museums Act rate,  $\frac{1}{4}$ d. in the pound, producing about £120 per annum.

**Nature of Collections.**—I. NATURAL HISTORY, local collections of Old Red and Silurian fossils, birds and birds' eggs, land and fresh-water mollusca, &c. II. ARCHÆOLOGY, mainly local British and Roman coins, &c.

**Times and Terms of Admission.**—Open daily, 9.30 a.m. to dusk. Admission free.

**Income and Working Expenses.**—In 1902, income, £118 11s. 10d., exactly balanced expenditure.

**General Information.**—The general purpose is to make the museum a local one. Special effort is made to secure specimens illustrating the natural history, antiquities, and general history of the county.

**Curator.**—J. COCKCROFT.

## HERTFORD

### The Hertford Museum.

**Governing Body.**—The museum is the private property of Mr. R. T. Andrews and his brother, Mr. N. F. Andrews.

**Nature of Collections.**—Minerals, shells, fossils, flint implements, coins, antiquities (local and general), stoneware and tiles, birds, mosses, and ferns, specimens of English and Australian timber, &c.

**Times and Terms of Admission.**—Open to the public from 2.30 p.m. to 4.30 p.m. on week-days (except Thursday). Admission free.

**Income and Working Expenses.**—No external sources of income. The working expenses are defrayed by the owners.

**Exhibition space.**—One room 20 ft. × 13 ft. and another 12 ft. × 10 ft.

**General Information.**—As soon as the local authorities can provide a suitable place for a museum, Messrs. R. T. and W. F. Andrews intend to present the whole of the contents of their museum to the town of Hertford.

## HOVE.

So far there is no museum or art gallery in Hove. But in the Free Public Library of the borough there is a large exhibition case containing a collection (called the "Parker Scientific Collection") of Hawaiian shells, Malagary minerals, specimens of lava, of timber from the Gold Coast, &c., presented to the town by Dr. G. W. Parker, sometime physician at the courts of Madagascar and Hawaii. To this collection has been added, by purchase and gift, a number of weapons, chiefly from Africa. It is hoped that these specimens may before long form the nucleus of a town museum.

**HUDDERSFIELD.****Huddersfield Museum.**

**Governing Body.**—Technical Education Committee.

**Staff.**—One Curator working three days in the week.

**Source of Income.**—Rates.

**Nature of Collections.**—Geological, zoological, botanical, economic, industrial.

**Special Collections.**—(1) The Whitwham Collection of British Land and Fresh-water Shells, (2) the Beaumont British Birds, (3) the Dawber British Plants, (4) the Holliday Foreign Stamps, (5) the Learoyd Minerals.

**Times and Terms of Admission.**—Open daily, except Sundays. Admission free.

**Lectures.**—No public lectures are as yet given, but it is intended that there shall be some.

**Loan of Collections, &c.**—Collections for lending out are in preparation.

**Income and Working Expenses.**—The income is not yet fixed. Working expenses for present year about £120.

**Exhibition Space.**—About 3,000 square feet divided between geology, zoology, botany, and textiles.

**Publications.**—A yearly Report appears in the Year-book of the Huddersfield Technical College.

**General Information.**—The museum is attached to the Technical College. Until recently it has been worked at a great disadvantage, and has had to depend largely upon voluntary efforts of the curator, and on donations from private individuals. The museum has now been taken over by the corporation, and a better state of affairs may be expected.

**Curator.**—S. L. MOSLEY, F.G.S.

## HULL.

## Municipal Museum.

**Governing Body.**—Museum Sub-Committee of Hull Corporation.

**Staff.**—A curator, clerk, and a hall-porter.

**Source of Income.**—Rates.

**Nature of Collections.**—Natural history, ethnology, and antiquities.  
Local antiquities form a marked feature, and the museum is rich in Cetacea.

**Special Collections.**—Norman collection of diatoms, Johnston Swailes collection of eggs, Dobrée collection of European Noctuæ, and Stevenson collection of Beverley antiquities. Type-specimen of *Balanoptera Sibbaldii*.

**Times and Terms of Admission.**—Open daily, 10 a.m. to 5 p.m. Tuesday and Thursday evenings, 7-30 to 9-30 during winter months.  
Admission free.

**Number of Visitors.**—About 2,000 per week.

**Income and Working Expenses.**—Income about £250 a year, much below the expenditure.

**Exhibition Space.**—Two large rooms and two galleries.

**Publications.**—The "Hull Museum Publications," which record and describe recent additions or specimens in the museum possessing peculiar interest, appear about monthly, price 1d. each. Fifteen have been published up to now.

**Curator.**—THOMAS SHEPPARD, F.G.S.

## HUNTLY.

### The Brander Library.

**Governing Body.**—Seven trustees, one of whom is the founder, WM. BRANDER, Esq.

**Staff.**—The collections are under the care of the librarian.

**Source of Income.**—A small endowment and fees charged for books lent out.

**Nature of Collections.**—Mainly minerals. There are also some fossils, a collection of New Zealand birds, and miscellaneous objects.

**Times and Terms of Admission.**—Mondays and Fridays, 5 p.m. to 8 p.m.; Tuesdays and Thursdays, 1 p.m. to 4 p.m.; Wednesdays, 10 a.m. to 1 p.m. Admission free.

**Loan of Collections, &c.**—Specimens are lent in cases where it is known that the borrower is trustworthy.

**Exhibition Space.**—Somewhat less than half a hall of 60 ft. x 24 ft. is occupied by the collections. The minerals are mainly in two flat cases, 9½ and 5 ft. long, and one erect case about 6 ft. high.

**General Information.**—A museum was not part of the original intention, but such a number of natural history specimens have come in that a small museum has been gradually formed.

**Librarian.**—MISS MARY GRAY, LL.A.

## ILKLEY.

### Ilkley Museum.

**Governing Body.**—Ilkley Urban District Council.

**Staff.**—The clerk of the council acts as secretary and there is a caretaker.

**Source of Income.**—Chiefly the rates. A small amount is obtained from admission fees, and from the letting of the room.

**Nature of Collections.**—Zoological, botanical, geological, and archaeological. Under the latter head come a number of local Roman antiquities from the station "Olicana," the site of which is occupied by the modern Ilkley.

**Special Collections.**—The Ellison Collection of local and other fossils, got together by a Silsden working-man, and purchased for £100.

**Times and Terms of Admission.**—April 1 to September 30, 10 a.m. to 7 p.m.; October 1 to March 31, 10 a.m. to dusk. Mondays, Wednesdays, and Saturdays, admission 2d. (children half-price); Tuesdays, Thursdays, and Fridays, free.

**Number of Visitors.**—In 1902, 3999. Of these, 593 were local people.

**Lectures.**—Courses of lectures were formerly given on botany, geology, and ceramics, but they have been discontinued for some years.

**Loan of Collections, &c.**—Specimens are occasionally lent out by permission of the council for such purposes as the illustration of a lecture.

**Income and Working Expenses.**—During the year ending March 31, 1902, the expenses were £69 16s. 8½d. The amount from admission fees, &c., amounted to £6 11s. 8d.; the rest was defrayed from the rates.

**Exhibition Space.**—Total available floor and wall space, 3,882 square feet.

**General Information.**—The Ilkley museum was founded by the Ilkley Museum and Antiquarian Society, and opened in 1892. The building cost £360; cases, fittings, and structural alterations, £285; Ellison Collection, £100. In 1896 the museum was taken over by the council (under the provisions of the Museums and Gymnasiums Act, 1891), clear of all liabilities except a mortgage debt of £350. The Local Government Board sanctioned a loan for the repayment of this in thirty years, and the interest and instalments—nearly £20 a year—are paid from the rates in addition to the working expenses.

**Secretary.**—FRANK HALL (Clerk to the Council).



**INVERNESS.****Inverness Public Museum.**

**Governing Body.**—Library Committee of Corporation.

**Staff.**—Librarian and assistant have charge of museum.

**Nature of Collections.**—Miscellaneous. The collections are only in process of formation. They include good collections of Indian coins, and of rock specimens.

**Times and Terms of Admission.**—Open daily, 9 a.m. to dusk. Admission free.

**Exhibition Space.**—40 ft. × 25 ft.

**General Information.**—It is the intention of the authorities to make this museum chiefly a Highland and Jacobite Collection.

**Curator and Librarian.**—S. F. DONALDSON.

## IPSWICH.

## Borough of Ipswich Museum.

**Governing Body.**—Council of 20 members appointed by the Town Council.

**Staff.**—Curator and three attendants.

**Source of Income.**—Rates.

**Nature of Collections.**—Natural history, Ethnology, Archæology (local), and Geology. The collection of fossils representing the Red Crag of Norfolk and Suffolk is especially complete.

A picture gallery, under the same council, is at Christchurch Mansion, in the public park.

**Times and Terms of Admission.**—Open daily, 10 a.m. to 5 p.m., and 7 p.m. to 9 p.m., except on Mondays, 10 a.m. to 5 p.m. only. Admission free.

**Number of Visitors.**—About 35,000 annually; picture gallery, 30,000.

**Lectures.**—Popular science lectures are given every winter, and natural history lectures during the term by the curator to classes from schools.

**Income and Working Expenses.**—About £1000 a year.

**Exhibition Space.**—One of the largest of provincial museums. A new wing was opened last year containing room for British birds and local natural history, a reference library, and museum workshops.

**Publications.**—Catalogue, now out of print. A new one is in course of preparation.

**Curator.**—FRANK WOOLNOUGH.

**JEDBURGH.****The Jedburgh Museum.**

**Governing Body.**—The Public Library Committee.

**Staff.**—One curator.

**Source of Income.**—Grants are made from the rates by the Library Committee.

**Nature of Collections.**—Miscellaneous, but an attempt is being made to give the collections a local character, and to encourage donations of specimens from Jedburgh people.

**Special Collections.**—The Scott collection of butterflies (on loan).

**Exhibition Space.**—One room, 20 ft. × 15 ft.

**General Information.**—The collections are contained in a room of the public library, and any visitor desirous of inspecting them is taken in either by the librarian or curator on application.

**Curator.**—GEORGE DOUGLAS.

**JERSEY.****Museum of the Société Jersiaise, St. Helier.**

The museum is the private property of the above-mentioned society. Among the main objects of this society are the publication of ancient documents relating to Jersey, and the conservation of objects illustrating the antiquities and natural history of the island. The collections include stone implements and other pre-historic objects found in Jersey, also stone implements from England and France. The natural history collections consist mainly of geological specimens, minerals, birds, crustaceans, shells, and butterflies - mostly local. There are also a few miscellaneous specimens from India, Japan, &c. The museum is open one day a week during summer, but is closed during winter. It is under the management of a committee of members.

**Curator** (*pro tem.*)—O. C. POWELL.

## KEIGHLEY.

### Keighley Museum and Art Gallery.

**Governing Body.**—The Parks Committee of the Corporation.

**Staff.**—One curator (attends three days in the week), one caretaker.

**Source of Income.**—Rates.

**Nature of Collections.**—Geological, Zoological (this includes an aviary), Botanical, Economic. A collection is being arranged to illustrate Biblical Natural History. There is a collection of British birds, set up with reproduction of natural surroundings.

**Times and Terms of Admission.**—At present open on Tuesday, Saturday, and Sunday afternoons. Students and school-classes admitted on other days. Art classes come every Wednesday. It is proposed to open it daily. Admission free.

**Number of Visitors.**—About 30,000 for the year.

**Lectures.**—The giving of public lectures is contemplated.

**Loan of Collections, &c.**—Collections are being specially prepared for this purpose.

**Income and Working Expenses.**—The working expenses for the last year were about £250.

**Exhibition Space.**—About 20,000 square feet of floor space. At present the collections are in one large room. Some smaller rooms adjoining this will shortly be used. Ultimately the large room will be devoted to zoology and botany; vertebrates to be arranged round the walls, invertebrates and plants in table cases.

**Publications.**—A small Guide to the British Birds has been issued, price 1d. Other guides are in preparation.

**General Information.**—The museum is quite a new one, and the collections are in course of arrangement. Some time must necessarily elapse before it can be got into order, for the curator has to divide his time between this museum and another, and he has at present no assistant.

**Curator.**—S. L. MOSLEY, F.E.S.

## KELSO.

**Museum of the Tweedside Physical and Antiquarian Society.**

**Governing Body.**—Patron, President, four Vice-Presidents, five Curators, and Secretary (who acts as Treasurer),

**Staff.**—A custodier and a conservator. (These officials do not devote all their time to the duties of those offices.)

**Source of Income.**—Subscriptions from members of the society.

**Nature of Collections.**—(i.) British birds: a good collection, about 350 specimens. (ii.) Minerals: an extensive collection. (iii.) Fossils. (iv.) Local antiquities and objects of interest; a considerable collection. (v.) Objects of general interest.

**Times and Terms of Admission.**—Open on Monday, Wednesday, and Friday, 12 noon to 4 p.m. Admission free.

**Number of Visitors.**—About 500 annually.

**Lectures.**—A course of public lectures was given some years ago. The question of resuming such lectures is under consideration.

**Loan of Collections, &c.**—Local antiquities have been lent out on a few occasions, *e.g.*, to the Glasgow Exhibition; but the curators do not consider the proceeding advisable.

**Income and Working Expenses.**—Income for 1902 (subscriptions and interest) £16. 19s. 4d.; expenditure, £23. 2s. od.

**Exhibition Space.**—A hall on the second floor, about 40 ft. x 20 ft., lighted from the roof, and two large rooms on the ground floor. The hall has a gallery running round it on three sides, which contains the collection of British birds. On the sides, under the galleries, are wall-cases, in which are placed the minerals and fossils on one side and objects of general interest (mostly foreign) on the other. On the floor are cases containing local antiquities, shells, birds' eggs, and minerals. The rooms accommodate a large number of foreign birds, placed in cases against the walls; and table-cases on the floor are filled with antiquities (Egyptian, Greek, Roman, and British).

**Publications.**—A catalogue of minerals and fossils.

**General Information.**—The Tweedside Physical and Antiquarian Society was founded in 1834. Its objects were "to promote the study of the natural history and antiquities of the district traversed by the Tweed and its tributaries, and to cause to be preserved in a museum set apart for that purpose whatever objects may be acquired illustrative of these branches of science."

**Custodier.**—Miss JESSIE OLIVER.

**KEW.****Museums of Economic Botany, in the Royal Botanic Gardens.**

**Governing Body.**—Department of Agriculture and Fisheries.

**Staff.**—A keeper, assistant, preparer, and four museum porters.

**Nature of Collections.**—Illustrate vegetable economic products, and also subjects of purely scientific interest. There are three museums: I. Dicotyledons; II. Monocotyledons; III. Timbers and Gymnosperms. In the North gallery there is a large collection of paintings by Miss Marianne North of various subjects of botanical interest. These are arranged geographically.

Museums I. and II. are arranged according to Hooker and Bentham's "Genera Plantarum." Museum III. is arranged geographically.

**Times and Terms of Admission.**—Open daily, Sundays included, 1 p.m. to 6 p.m. in summer, and 1 p.m. till dusk in winter. Admission free.

**Lectures.**—No public lectures are given, but the keeper of the museums gives lectures to the young gardeners during the summer.

**Publications.**—(a) Guides to the collections; (b) Bulletin of miscellaneous information. (This relates to the gardens as a whole.)

**Keeper of the Museums.**—JOHN MASTERS HILLIER.

## KILKENNY.

### Kilkenny Museum.

**Governing Body.**—Five Trustees with a Committee of about thirty members, and an Honorary Secretary (M. M. Murphy, Esq.)

**Staff.**—

**Source of Income.**—Subscriptions from members and £5 a year from the Royal Society of Antiquaries of Ireland.

**Nature of Collections.**—Antiquarian and Historical.

**Times and Terms of Admission.**—During rearrangement at present proceeding, collections may be visited on application to the Hon. Secretary.

**Publications.**—Articles appearing in the Journal of the Royal Society of Antiquaries of Ireland.



**KILMARNOCK.****Kilmarnock Public Library and Museum (in the Dick Institute).**

**Governing Body.**—The Committee of the Public Library and Museum.

**Staff.**—The Librarian acts as Curator.

**Source of Income.**—The Public Library rate. Grants for furnishing have also been received from the excise duties.

**Nature of Collections.**—Geological, Ornithological, Entomological, Ethnological, Antiquarian, and Art. The third circulating collection of water-colour paintings, of the British School (from the Victoria and Albert Museum), is now on exhibition. An exhibition of a loan collection (promoted by the Kilmarnock Fine Art Institute), and one of local pictures have recently been held.

**Special Collections.**—The James Thomson collection of carboniferous corals, and the Hunter-Selkirk collection of silurian fossils, from the Logan Water.

**Times and Terms of Admission.**—Open daily, 9 a.m. to 9.30 p.m. Admission free.

**Lectures.**—Lectures are given under the auspices of the Kilmarnock Glenfield Ramblers' Society, and the Philosophical Institution. A course is now in progress on Greek Sculpture, by a member of the Association of Women Graduates of Glasgow University, under the auspices of a local committee of ladies.

**Income and Working Expenses.**—The income and expenditure of the whole institute for the past year balance—£1469 10s. 7d.

**Exhibition Space.**—Floor area of the whole museum 4540 sq. ft., nearly one half of which is allotted to the geological collection.

**General Information.**—The Glenfield Ramblers' Society takes an active part in the work of the museum, by procuring and arranging specimens. This is done under the direction of Mr. David Murray, M.A., B.Sc., convener of the museum committee.

**Librarian and Curator.**—H. Y. SIMPSON.

**KIDDERMINSTER.****Kidderminster Permanent Museum and Art Gallery.**

**Governing Body.**—Committee of the Science and Art Schools.

**Staff.**—A Curator.

**Source of Income.**—County Council Grant, and contribution from Kidderminster Corporation.

**Nature of Collections.**—(I.) Natural History, Butterflies, Shells, Fossils, Herbarium; (II.) Art, Pictures, Glass, Bronzes, Pottery. Illustrated MSS.

**Special Collections.**—Beauchamp collection of snuff boxes; Tomkinson collection of Japanese objects. (These are on loan.)

**Times and Terms of Admission.**—Open Monday, Thursday, and Saturday. Admission free, except when a specially fine collection is got together, when 3d. is charged.

**Number of Visitors.** - About 11,000 annually.

**Loan of Collections, &c.**—Pictures and specimens are occasionally lent.

**Exhibition Space.**—Wall space of the Art Gallery is 200 feet by 18 feet. The Museum is 60 feet by 40 feet.

**General Information.**—The Museum depends largely on the Art side, upon loan collections. Those from the Victoria and Albert Museum are usually of such a nature as to help students in carpet designing, &c.

Pictures, oil and water colours, are frequently obtained for temporary exhibitions. Alderman P. Adams lends for this purpose from his own large collection.

**Curator.**—ROBT. B. DAWSON, A.R.C.A.

**KINGSTON-UPON-THAMES**

has at present no museum, but at a recent meeting the Town Council approved of plans for the erection of a museum and art gallery to adjoin and communicate with the new library building lately erected there.

**KING'S LYNN.****King's Lynn Museum and Art Gallery.**

**Governing Body.**—The Town Council.

**Staff.**—A Curator.

**Source of Income.**—Rates and subscriptions.

**Nature of Collections.**—General : strong in birds.

**Special Collection.**—(i.) Gurney collection of birds ; (ii.) Baines' collection of African objects ; (iii.) Captain Manby's collection of Nelson relics.

**Times and Terms of Admission.**—Not yet definitely settled. It is proposed that it shall be opened daily (except on Sundays) from 10 a.m. to 4 p.m., and that it be free on Monday, Wednesday, Friday, and Saturday ; on Tuesday and Thursday a charge of 3d. is suggested.

**Income and Working Expenses.**—The income from the rates is about £165.

**General Information.**—The museum has recently been taken over from a body of trustees by the Corporation, and the whole of the collections are being transferred to premises recently acquired. The museum will very shortly be opened to the public.

**Curator.**—C. T. PAGE.

**KINROSS.**

The Town of Kinross has recently acquired (by bequest) the collections obtained by the late David Marshall, F.S.A. It is proposed that these collections, which are mainly local, should be put under the control of trustees appointed by the town, and be housed in the Free Library Buildings, under the title of "The Marshall Museum."

## KIRKCUDBRIGHT.

### Stewartry of Kirkcudbright Museum.

**Governing Body.**—An association under the presidency of the Lord-Lieutenant of the Stewartry. The management of affairs is delegated to a small committee of county and local gentlemen, assisted by an hon. curator, an hon. treasurer, and an hon. secretary.

**Staff.**—A keeper and his son (taxidermist to the museum), who live in a dwelling attached to the museum.

**Source of Income.**—Annual donation of £5 from Captain Hope, R.N., members' subscriptions, and money taken at the doors.

**Nature of Collections.**—Miscellaneous. They include collections of the fauna and flora of the Stewartry, shells of Great Britain and Ireland, and extensive geological collections. There are also portraits of leading men in the district, and a great many drawings and sketches, chiefly of old castles and churches in the county.

**Times and Terms of Admission.**—Open 8 a.m. to sunset in summer, and 8 a.m. to dusk in winter. Non-subscribers are charged 6d. for admission.

**Number of Visitors.**—About 3,500 annually; of these a large number are scholars.

**Lectures.**—No public lectures are given, but the hon. curator lectures to the scholars of the local schools on natural history.

**Loan of Collections, &c.**—Specimens are lent to the Academy (High School) chiefly to be used in drawing from nature.

**Income and Working Expenses.**—The income, from the various sources mentioned above, amounts to between £45 and £50 a year. The working expenses are always kept below the income.

**Exhibition Space.**—The main hall is 51 ft. long and 31 ft. wide; a gallery, 5½ ft. wide runs round it. The natural history collections are on the ground floor; antiquities in the gallery. There is also a room over the entrance hall, in which are stored the herbarium and ancient documents.

**Publications.**—There is no special publication, but additions to the museum are published in the local newspaper.

**General Information.**—The association was formed in 1879, and its collections were at first housed in two upper rooms of the Kirkcudbright Town Hall. They speedily out-grew this accommodation, and a new museum was built, and was opened in 1893. The aim of the managing committee is to make this museum an educational one. Every specimen is fully labelled, and the attendance of pupils from neighbouring schools is specially encouraged. From 150 to 200 scholars attend regularly for instruction in natural history, geology, &c., and about 400 make periodical visits. To stimulate the interest of the pupils, prizes are awarded at the end of each session.

**Hon. Curator.**—JOHN MCKIE, R.N.

**KIRKLEATHAM.**

The Hospital of Kirkleatham possesses a museum containing a miscellaneous collection of objects of interest, including some excellent specimens of iron work and wood carving, and a few pieces of mediæval armour. The museum may be inspected by visitors on application to the custodian, Mr. Walter Amsell.

**LAUNCESTON.****Museum of the Launceston Scientific and Historical Society.**

**Governing Body.**—President, Vice-President, Hon. Curator and Hon. Secretary (who acts as Hon. Treasurer), and not more than four ordinary members. Three members constitute a quorum.

**Staff.**—A Curator.

**Source of Income.**—Subscriptions (annual) from members and voluntary contributions from outsiders.

**Nature of Collections.**—Miscellaneous.

**Times and Terms of Admission.**—Open daily (except Sundays). Admission free.

**Lectures.**—Lectures are occasionally given at the museum, and annual expeditions are made to places of interest in the neighbourhood.

**Exhibition Space.**—The collections are arranged and stored over the old South Gateway of Launceston.

**General Information.**—The society was founded in 1879 to further the study of science; to investigate the history, antiquities and natural features of the district round Launceston; and to establish a museum representative of Cornwall and Devon and more particularly of the neighbourhood of Launceston.

**Hon. Curator**—WILLIAM WISE.



**LARGO.**

There is a small Museum here in connection with a local Natural History Society, but the collections are neglected.

## LEEDS.

## The Leeds Museum.

**Governing Body.**—The Council of the Leeds Philosophical Society.

**Staff.**—A curator, two assistants, and a porter.

**Source of Income.**—Subscriptions to the society, and payments at the door.

**Nature of Collections.**—Natural History, Ethnology, Geology, Antiquities.

**Times and Terms of Admission.**—Open daily, 10 a.m. to dusk. Admission 1d. Members of the society, graduates of the university, others doing special work admitted free.

**Number of Visitors.**—25,000 to 26,000 annually, by payment at the door; 15,000 school children make museum visits and 2,000 attend lectures on museum objects.

**Loan of Collections.**—Specimens are occasionally lent to the Yorkshire College, to students engaged in research, &c.

**Exhibition Space.**—The site of the building occupies a little over 1,000 square yards. The rooms are in two storeys with galleries.

**Publications.**—Annual report, and the following guide-books :—(i.) General; (ii.) Greek Antiquities; (iii.) Kirkstall Abbey; (iv.) Minerals; (v.) Description of Megalichthys.

**Curator.**—H. CROWTHER, F.R.M.S.

**LEEDS** (*continued*).**Leeds City Art Gallery and Museum.**

**Governing Body.**—A committee of fifteen, nine of whom are members of the council (Library Committee), and six are elected by the Council from outside its own ranks for special knowledge of Art.

**Staff.**—A Curator, two clerical assistants, a porter, a commissionaire (evening duty). There is a policeman on duty in the gallery day and night: his services are lent by the Watch Committee. Women cleaners are lent by the Corporation Property Committee.

**Source of Income.**—Library Rate and Technical Education grant.

**Nature of Collections.**—Mainly Art: there is also a small Archæological and Ethnological Collection.

**Times and Terms of Admission.**—Permanent Collection, daily 10 a.m. to 9 p.m., but during special exhibitions 10 a.m. to 6 p.m., except on Wednesdays (10 a.m. to 9 p.m.), and Saturdays (10 a.m. to 9.30 p.m.)

**Number of Visitors.**—Annual average since 1888, 288,186.

**Lectures.**—Lectures are occasionally given, music is also played two or three times a week during special exhibitions.

**Loan of Collections, &c.**—Pictures are occasionally lent to other Corporations, but usually not more than one at a time is sent to the same gallery.

**Income and Working Expenses.**—Income, about £1300 a year (£800 from Library Rate and generally about £500 from the Technical Education grant). Total net working expenses, about £589 a year.

**Exhibition Space.**—On the ground floor: Sculpture Room, 82 × 38 feet; Vestibule, 84 × 19 feet; Water-colour Room, 22 × 19 feet; Queen's Room, 35 × 41 feet; Central Court, 90 × 130 feet. Upstairs: Staircase Hall, 54 × 34 feet; West Room, 32 × 30 feet; South Room, 72 × 31 feet; East Room, 62 × 23 feet; North Room, 62 × 32 feet; Balcony, 30 × 6 to 12 feet.

**Publications.**—"Catalogue and Handbook of Casts and Sculptures in the Permanent Collection, with descriptive notes and historical memoranda" (42 pp), price 1d. "Catalogue of Paintings and Drawings in the Permanent Collection, with notes descriptive and biographical" (88 pp.), price 1d. (The above catalogues are sold at one penny each, but the cost of their production is nearly three times as much.)

**Curator.**—GEORGE BIRKETT.

## LEEK.

### Nicholson Institute.

**Governing Body.**—A committee, with Mr. A. Nicholson as chairman, consisting of members of the Urban District Council and representatives of the Nicholson family.

**Staff.**—A curator, an assistant, and a caretaker.

**Source of Income.**—Rate ( $\frac{1}{2}$ d. in the pound) and contributions from Mr. A. Nicholson.

**Nature of Collections.**—(i.) Science ; geological and zoological (particularly entomology, with special reference to silk). (ii.) Art ; pictures and collections illustrative of various handicrafts. A series is in process of formation to illustrate silk manufacture.

**Times and Terms of Admission.**—Open daily from 10 a.m. to dusk. Admission free.

**Number of Visitors.**—About 8,000 annually.

**Lectures.** Public lectures are occasionally given.

**Loan of Collections, &c.**—Specimens and pictures are lent out from time to time.

**Income and Working Expenses.**—About £100 per annum is expended on the museum and art gallery.

**Publications.**—Annual Report.

**General Information.**—The Nicholson Institute was founded in 1884, by the late Joshua Nicholson, and was formally opened in that year by Lord Wrottesley, Lord Lieutenant of Staffordshire. It includes a Free Library, Art Gallery and Museum, School of Art and Science, County Silk School and High School for Boys and Girls. To this was added, in 1900, a Gymnasium, the gift of Mr. William Carr. Leek adopted the Public Libraries Act in 1888, the Technical Instruction Act in 1891, and the Museums and Gymnasiums Act in 1897.

**Curator.**—KINETON PARKES.

## LEICESTER.

**Leicester Corporation Museum and Art Gallery.**

**Governing Body.**—Museum and Art Gallery Committee of the Town Council of the Borough of Leicester; it consists of seven members of the council and five gentlemen who are not members of the council.

**Staff.**—A curator, a sub-curator, assistants, an attendant, a porter, and a policeman. A second policeman is on duty during holiday times.

**Source of Income.**—Part from rates, part from funds obtained by letting rooms, &c.

**Nature of Collections.**—(I) SCIENCE, (a) *Mineralogical*: a fine collection of minerals and rocks; (b) *Biological*: (i) Plants, (ii) Invertebrata, and (iii) Vertebrata Extinct and recent forms are arranged together. The country fauna is well represented, especially the birds which are mounted with nests, eggs, modelled foliage, and other accessories; (c) *Archaeological* and *Ethnological*: Pre-historic, Egyptian, Babylonian, Assyrian, Celtic, Roman, Anglo-Saxon, Mediæval, and Modern Objects are exhibited chiefly under the heads of (i) Arms, (ii) Implements, (iii) Ornaments, (iv) Utensils, (v) Pottery, Glass, and Architectural Remains, (vi) Coins, Medals, and Tokens, (vii) Textile Fabrics, (viii) Drawings, Maps, Plans, MSS, &c. There is also a Library of scientific works, the use of which is granted to persons known to the authorities of the museum.

(II) ART: Oil and Water-colour Paintings (many originally exhibited in the Royal Academy); Statuettes in bronze, &c., South Kensington loans.

**Special Collections.**—The Bickley Collection of Birds and the Johnson Collection of Central African Ethnology.

**Times and Terms of Admission.**—Open in Summer 10 a.m. to 7 p.m., in Winter 10 a.m. to dusk, on Sundays 2 p.m. to 5 p.m. Admission free.

**Number of Visitors.**—From 80,000 to 90,000 annually.

**Lectures.**—Saturday Evening free lectures are delivered in the museum lecture theatre, weekly, from the middle of October to the week before Christmas, every year.

**LEICESTER**—(*Continued*).**Leicester Corporation Museum and Art Gallery—**  
(*continued.*)

**Loan of Collections &c.**—Natural History and Archæological and Ethnological objects are lent locally. Pictures in the art gallery are annually lent to other galleries and to national exhibitions, such as—Cork International, Wolverhampton Art and Industrial, Nottingham Exhibition (1903), and those at Chicago, Guildhall, &c.

**Income and Working Expenses.**—Both are variable; income about £1,600 on average, and working expenses about £600.

**Exhibition Space.**—One small room is devoted to the minerals, a large one to plants, invertebrates, and fishes, amphibians, and reptiles. The other vertebrates are exhibited in a large room, a smaller one adjoining contains the Bickley collection of birds. Another large room is devoted to ethnological and archæological collections, and a small annexe contains Roman and other remains. The Art Gallery contains a fine large gallery used for lectures, &c., and two smaller side galleries in which the South Kensington loan collection of china, plate, &c., and other objects are exhibited, in addition to pictures.

**Publications.**—An annual report on the museum and art gallery; illustrated Guide to the Museum, one penny; illustrated Catalogue to the Permanent Art Gallery, twopence.

**Curator.**—MONTAGU BROWNE, F.G.S., to whom all enquiries should be addressed.

## LICHFIELD.

### Lichfield Museum and Free Library.

**Governing Body.**—Museum Committee.

**Staff.**—Curator and librarian.

**Source of Income.**—Grant from City Council (in lieu of rate) and voluntary gifts.

**Nature of Collections.**—Fossils, Minerals, Armour, Statuary, Pictures, Models, Flags, and miscellaneous objects. Loan collection of pictures from South Kensington.

**Times and Terms of Admission.**—In summer, 1 p.m. to 6 p.m., in winter, noon to 3 p.m. Admission free.

**Number of Visitors.**—About 8,000 annually.

**Income and Working Expenses.**—Income about £180 a year, expenditure about the same.

**Exhibition Space.**—One large room with glass cases down centre and sides (for fossils, minerals, &c.) Walls hung with pictures, trophies, flags, &c. Models, statuary, suits of armour, &c. on the floor.

**General Information.**—The Lichfield Museum and Free Library is a building in the Italian style near the Minster Pool, surrounded by lawns and gardens; this institution created under Ewart's Act for establishing free libraries, owes its origin and position mainly to the perseverance of the late John Philip Dyott, Esq., formerly Mayor of Lichfield, and is under the control of the Town Council. It comprises a news room, well supplied with papers and periodicals free to all comers; a lending library of about 3,500 volumes, a valuable library bequeathed by the will of the late John Goodwin, Esq.; a native of Lichfield and British consul at Palermo; a museum containing a collection of sulphur ores given by him; a collection of minerals presented by the late Miss Power, and some fine examples of statuary besides pictures, antiquities, and local historical relics. The late Rev. Chancellor Law, in 1872, erected a fountain in the museum gardens, and the majority of the most valuable books were given by him. A drinking fountain attached to the building was the gift of the late Thomas Rowley, M.D., late Mayor of Lichfield.

## LINCOLN.

## City of Lincoln Municipal Technical Schools.

**Governing Body.**—School Committee.

**Staff.**—None; the secretary of the school acts as hon. secretary of the museum.

**Source of Income.**—Formerly subscriptions: for the future, rates.

**Nature of Collections.**—Loan collections of Pictures, Glass, China, &c.; loans from South Kensington; a small collection of swords.

**Times and Terms of Admission.**—Open daily 10 a.m. to 4 p.m. Admission free.

**Number of Visitors.**—About 2,000 annually.

**Income and Working Expenses.**—The only expenses are the charges made by the South Kensington authorities, amounting to about £5 a year.

**Exhibition Space.**—A large schoolroom, about 30 ft. by 22 ft. and 15 ft. high.

**General Information.**—Efforts have been made for many years to obtain a City museum, and the Corporation has purchased a site with that end in view. It is hoped that the buildings on that site may shortly be made suitable for a museum.

**Hon. Secretary.**—ALFRED E. COLLIS.



**LLANIDLOES.**

The Llanidloes Institute and Library possesses a small collection of miscellaneous objects. This Institute is a public one, but is chiefly supported by voluntary contributions.

## LIVERPOOL.

## The Free Public Museums,

CONSISTING OF

1. The Lord Derby Museum,
2. The Mayer Museum.

**Governing Body.**—The library, museums, and art committee of the Corporation.

**Staff.**—Director; assistant curator of the Lord Derby Museum, with one botanical assistant, one for biological laboratory, and one mineralogical assistant; assistant curator of the Mayer Museum; one office clerk; one draughtsman; one chief taxidermist, three under-taxidermists, and one assistant; one printer; one clerk of the works, with four artisans and thirteen attendants.

**Source of Income.**—Rates.

**Nature of Collections.**—I. THE LORD DERBY MUSEUM contains anthropological (Mongolian, Caucasian, and Melanian), zoological, botanical, mineralogical, and geological collections, arranged as systematic and local collections. There is an aquarium attached to this museum, containing marine and fresh-water amphibians, reptiles, fishes, and invertebrata, comprising many West African and tropical forms. The collection of birds is especially good; it contains over 45,000 specimens, among which there is a large number of types, and specimens of some species that are now extinct. There is also a considerable number of mammalian types. The collections of mollusca and minerals are also especially complete.

II. THE MAYER MUSEUM contains ethnological and archæological collections, arranged on three floors—Mongolian, Caucasian, and Melanian respectively. The points in which these collections are specially strong are—West African ethnography, Anglo-Saxon antiquities, Egyptian antiquities, Napoleonic miniatures, ivories, English pottery (especially Wedgwood), a fine *Codex mexicanus*; there is also a notable example of a Haida-Indian totem pole 39 feet 6 inches high.

**Special Collections.**—The Phillips cabinet of minerals, the Fejervary ivories, the Cook collection of British Lepidoptera.

**Times and Terms of Admission.**—Open free daily at 10 a.m. Closes in summer at 6 p.m., and at other seasons at 5, 4.30, or 4 p.m., according to light. On Monday evenings, from October to March, the museum is re-opened from 7 p.m. to 10 p.m.

**Number of Visitors.**—498,000 in 1903.

**Lectures.**—Lectures are delivered on biological and ethnological subjects every Monday evening, from October to March, by the director and his staff, and occasionally by others.

LIVERPOOL (*continued*).The Free Public Museums (*continued*).

**Loan of Collections.**—A number of small typical collections arranged in convenient boxes are distributed to nineteen schools in the city every month. This system is on the increase.

**Income and Working Expenses.**—Income for 1903 was £11,000; estimate for expenditure in 1904, £12,500.

**Exhibition Space.**—The Derby Museum contains 43,334 sq. ft., comprised in long horse-shoe-shaped galleries on two floors, 650 ft. long, by 32 ft. wide, each with a connecting transept towards the open ends. In the upper gallery are the systematically-arranged collections of zoology, geology, and mineralogy; in the lower are illustrated the archæology, zoology, geology, mineralogy, and botany of the local area—Lancashire, the Wirral, and a strip of North Wales facing the Dee. There are also small series illustrating such biological principles as protective resemblance, mimicry, melanism, albinism, seasonal changes, &c.

The Mayer Museum is arranged around two galleries, each containing 2,364 sq. ft., with a basement of 9,249 sq. ft., together with the main hall and its balcony, giving an additional 8,179 sq. ft. Iron-work balustrated balconies have been erected over portions of the galleries on the upper floor, containing 124 cabinets, each fitted with four to ten interchangeable drawers, according to size, to accommodate the zoological and geological study collections, open to students only. The upper floor is devoted to Mongolian ethnology; the lower, including the main hall and its balcony, to handiwork of the Caucasian race; and the basement to that of the Melanian race.

**Publications.**—(1) Annual Reports (begun in 1853). (2) Catalogue of the Mayer Collection, parts 1, 2, and 3. (3) Museum Reports (scientific), parts 1 to 5; continued as (4) "The Bulletin of the Liverpool Museums" (large 8vo.), of which Vols. I., II., and of III., parts 1 and 2, have been issued under the editorship of the director. (5) "The Natural History of Sokotra and Abd-el-Kuri" (constituting a special Bulletin of the Museums), a report on the exploration of those islands by the director and Mr. Ogilvie-Grant; large 8vo., 600 pp., 34 coloured plates. (6) Guides: (a) Synopsis of Vertebrate Animals, (b) Museums of Natural History.

**Director.**—HENRY O. FORBES, LL.D., F.Z.S., F.R.G.S.

LIVERPOOL (*continued*).**Zoological Museum of the University of Liverpool.**

**Governing Body.**—The museum is under the immediate control of the Professor of Zoology, who is responsible to the Court of Governors of the University

**Staff.**—The Professor of Zoology and assistants.

**Source of Income.**—From the funds administered by the University Council. Part of these funds comes from a municipal grant, but the greater part from endowments.

**Nature of Collections.**—Zoological, geological, general natural history, and anthropological. A special point is made of local marine biology, and there is a very good collection of local Triassic Reptilian foot-prints.

**Special Collections.**—Professor Herdman's collection of Tunicata.

**Times and Terms of Admission.**—Open daily, 9.30 a.m. to 1 p.m. on Saturday; 9.30 a.m. to 5 p.m. on other week-days. Admission free.

**Lectures.**—Those of the University Department of Zoology—in which the museum is utilized—especially in connection with lectures to teachers and sea-fisheries classes.

**Publications.**—Those of the Department of Zoology:—1. Annual Report to the Council of the University. 2. Annual Report of the Liverpool Marine Biology Committee (17th just published). 3. Annual Report of the Sea-fisheries Laboratory (No. XII. just published). 4. Lancashire Sea-fisheries Memoirs (two issued). 5. Reports on Fauna and Flora of Liverpool Bay (five vols. out). 6. Liverpool Marine Biology Committee's Memoirs on Typical British Marine Animals and Plants (Memoirs I.-XII. published).

**General Information.**—The main purpose in the constitution and arrangement of the collections is to make the museum an *educational* one. This plan is carried out along three distinct lines:—  
I. GENERAL—To give all visitors more or less systematic information of typical and noteworthy forms of living nature. II. SPECIAL—For the help and instruction of students, especially those in the zoology classes. III. RESEARCH—Some of the collections are arranged specially to assist advanced study and original investigation. This is particularly the case with the "Fisheries" and other kindred collections, and those illustrating the local Fauna and Flora. The museum is at present in temporary quarters, but a large new museum is in course of erection and will be completed in about a year.

**Director.**—The Professor of Zoology in the University of Liverpool (Professor W. A. HERDMAN, F.R.S.).

**LIVERPOOL** (*continued*).**Walker Art Gallery.**

**Governing Body.**—Art and Exhibitions Sub-Committee (a committee of the City Council).

**Staff.**—Curator, assistant curator, assistant, five attendants (in uniform), four housemaids (in uniform), three boys in cloak room.

**Source of Income.**—Rates, and profits from annual exhibition of pictures and sculpture.

**Nature of Collections.**—I. MODERN PICTURES—Oil paintings, water-colours, mezzotints, engravings, &c. II. MODERN SCULPTURE—including casts and specimens of pottery ware. III. "OLD MASTERS."

**Special Collections.**—The William Roscoe collection of Early Masters (deposited by the Trustees of the Royal Institution of Liverpool).

**Times and Terms of Admission.**—Open daily. Hours:—January, November, and December, 10 a.m. to 4 p.m.; February, 10 to 4.30; March and October, 10 to 5; remaining six months, 10 to 6. Sundays, October to May, 2 p.m. to 4.30 p.m. Permanent collection open free to the public except on Friday (students' day), when a charge of sixpence is made. Students are allowed to copy each day from 8 a.m. to 1 p.m.

**Number of Visitors.**—About 450,000 annually.

**Lectures.**—Public lectures are occasionally given during loan exhibitions, such as those held in autumn and spring; but the spring exhibitions are not held regularly.

**Loan of Pictures.**—Pictures have been lent to other galleries on special occasions,

**Exhibition Space.**—There are fourteen galleries, dimensions as follows:—one 72 × 35 ft., two 70 × 30 ft., one 65 × 35 ft., one 65 × 26 ft., one 62 × 30 ft., four 35 × 22½ ft., one 22 × 22 ft., one 40 × 30 ft., two 17 × 12 ft. During the autumn exhibition, 1700 to 1800 works are exhibited (this is exclusive of the permanent collection).

**Publications.**—1. Illustrated catalogue, sixpence. 2. Descriptive catalogue, threepence. 3. Catalogue of Roscoe collection, threepence. 4. Catalogue of casts, twopenny. 5. Model of Rome, one penny.

**General Information.**—The art gallery is a gift to the city by the late Sir A. B. Walker. The works acquired are either by gift, bequest, or purchase. In the last case, purchases are made from the profits of the annual autumn exhibition, and from the interest on a fund bequeathed by the Earl of Derby for the purchase of works by rising artists. As a rule, purchases are selected from the works in the autumn exhibition.

**Curator.**—CHARLES DYALL.

**LONDON.**

**Royal Architectural Museum.**

This Museum has recently been transferred to the Architectural Association, and is in process of re-construction.

**Curator.**—FRANCIS FORD.

LONDON (*continued*).**Museum of the Royal Botanic Society of London.**

**Governing Body.**—President and Council of the Royal Botanic Society.  
(Secretary, Mr. J. BRYANT SOWERBY.)

**Staff.**—A Curator.

**Source of Income.**—Funds of the Society.

**Nature of Collections.**—Botanical, mainly plants, fruit, seeds, and vegetable products. These are arranged in four series :—(1) Botanical, (2) Economic, (3) Commercial, (4) Educational. The following separate groups are noteworthy :—(a) teas and coffees and beverages, (b) fibres, (c) gums and gum-resins, (d) india-rubbers, (e) woods, (f) cereals.

**Times and Terms of Admission.**—Open daily, 9 a.m. to 5 p.m. Visitors to the gardens by Fellows' orders (unless Fellows or members of the society) are admitted to the museum without charge ; and the public on Saturdays and Mondays on payment of 1s. ; also recommended students of Botany and Natural History Rambling Clubs.

**Lectures.**—These are given during the summer season on subjects connected with Botany. Papers on botanical subjects are read at meetings of the Fellows on the last Friday in each month.

**Publications.**—The society publishes a Quarterly Record.

**General Remarks.**—The gardens and conservatories of the society constitute in themselves a museum of plants ; the aim of the society in planting has been to a great extent educational. A School of Practical Gardening is held in the grounds ; the pupils are for the most part scholars of public elementary schools, nominated by the Technical Education Board of the London County Council.

**Curator.**—J. L. NORTH.

**LONDON—***(Continued).***South London Art Gallery.**

**Governing Body.**—Art Gallery Sub-Committee of the Libraries Committee of the Borough of Camberwell.

**Staff.**—A curator, a clerk, two attendants, one night watchman. Occasional help given by police (on Sundays) and by attendants from other departments of the borough service.

**Source of Income.**—Libraries rate.

**Nature of Collections.**—Oil paintings, water-colours, engravings, industrial art.

**Times and Terms of Admission.**—Week-days, 2 p.m. to 10 p.m.; Sundays, 3 p.m. to 9 p.m. Admission free.

**Number of Visitors.**—About 180,000 a year.

**Lectures.**—Public lectures are occasionally given.

**Income and Working Expenses.**—The penny rate produces £5,100 on which five libraries and the art gallery are maintained. The expenses of the gallery are £750, out of which £150 is at present devoted to a sinking fund.

**Exhibition Space.**—Two galleries, 70 ft. × 40 ft., devoted to oil paintings and industrial art; one gallery, 50 ft. × 12 ft., to water-colours; and one, 70 ft. × 12 ft., to engravings.

**General Information.**—The gallery was erected through the liberality of Mr. PASSMORE EDWARDS.

**Curator.**—W. B. DALTON.



**LONDON** (*continued*).**Cuming Museum (attached to the Newington Public Library).**

**Governing Body.**—Public Libraries and Museum Committee of the Southwark Borough Council, together with Trustees nominated by the founder of the museum.

**Staff.**—Not yet appointed.

**Source of Income.**—Endowment and museum rate.

**Nature of Collections.**—Miscellaneous. The collection of coins is especially good.

**Lectures.**—It is proposed that these should be given when the museum is in working order.

**Income and Working Expenses.**—The latter are as yet nil. The income at present is the interest on £8,000 Consols, which forms the endowment, and the product of the Museum rate.

**Exhibition Space.**—This question is at present under consideration. It is proposed that part of the collections shall be in cases in various rooms of the library, and part in a special annexe, 60 ft × 23 ft., which it is proposed to build. This gallery will also serve for the exhibition of pictures.

**General Information.**—The "Cuming" collection has been formed in the locality during the past century and a quarter. It was begun during the boyhood of Richard Cuming in 1782, and was lodged in a house almost immediately opposite the present library premises. The work was continued by his son, the late H. Syer Cuming, F.S.A. (Scot.), who died Oct. 7th, 1902, aged 85, bequeathing the collection—some 136,000 specimens—under certain conditions, to the library of his native parish, together with £8,000 in Consols. The collection is fully described and illustrated in Bowers's "Sketches of Southwark, Old and New" (1902), pp. 575-590. The museum is not yet open.

**Librarian and Secretary.**—RICHARD W. MOULD, F.S.A., Scot.

LONDON (*continued*).**Museum of Royal Naval College, Greenwich.**

**Governing Body.**—The Lords Commissioners of the Admiralty.

**Staff.**—A curator, a modeller, a hired painter (for decoration of models), four attendants, one labourer.

**Source of Income.**—The annual vote for the British Navy.

**Nature of Collections.**—Mainly illustrative of naval matters. This includes models of ships in the Royal Navy from 1514 to the present time; models and pictures of dockyards; models of foreign ships captured in war; arms and banners captured at sea; pictures of naval battles; portraits of admirals; relics of Nelson (in painted hall) and Sir John Franklin, &c. There are also a few small subsidiary collections, *e.g.*, one of minerals and ores from estates in the north of England belonging to Greenwich Hospital. There is a very good collection of models of engines and guns, also a good collection of foreign models in museum.

**Times and Terms of Admission.**—Open daily, except Friday and Sunday (the painted hall, containing pictures, &c., open every day). Hours of opening: 10 a.m. (painted hall, 2 p.m. on Sunday). Hours of closing: Nov. 1 to Feb. 15, 4 p.m.; Feb. 16 to March 31, and Sept. 16 to Oct. 31, 5 p.m.; April 1 to Sept. 15, 6 p.m. Admission free.

**Number of Visitors.**—90,000 to 100,000 annually.

**Exhibition Space.**—On the west side, four rooms on ground floor, four on first floor, three on second floor; on the east side, two rooms.

**General Information.**—The series of models of ancient and mediæval ships is probably the best extant. The building also possesses considerable interest, apart from the collections that it contains. It is built on the site of the old palace of Humphrey, Duke of Gloucester (1437), and the crypt of the chapel belonging to the palace is still preserved. The present building has a beautifully decorated chapel and a fine, painted hall, the ceiling of which was painted by Sir James Thornhill during the years 1708-1727.

**Curator.**—T. PRATT, R.N.

**LONDON** (*continued*).**Guildhall Museum (or Museum of the Corporation of London).**

**Governing Body.**—The Library Committee of the Corporation of London.

**Staff.**—Curator, one occasional assistant, one attendant in uniform, clerical help from library staff.

**Source of Income.**—From the private funds of the Corporation of London.

**Nature of Collections.**—Illustrative of the past history of London. They include pottery, glass, weapons, tools, ornaments, coins, sculpture, &c., of pre-historic, Roman, Anglo-Saxon, and later periods. There are also exhibited collections of autographs (including one of William Shakespeare), bibliographical rarities, medals and badges relating to the corporation and city companies, tradesmen's tokens, and pilgrims' signs.

**Special Collections.**—The collection of old clocks and watches formed by the Company of Clockmakers. Illustrations of the history of the art of engraving, selected from time to time from the Willshire bequest of prints.

**Times and Terms of Admission.**—Open daily (but not on Sunday), 10 a.m. to 5 p.m. in summer, 10 a.m. to 4 p.m. in winter. Admission free.

**Number of Visitors.**—103,061 in 1902.

**Lectures.**—A lecture on "The Guildhall Library and Museum, their history and treasures," illustrated by specially prepared lantern pictures, was given by Mr C. WELCH (librarian and curator), in the Guildhall, in 1902. Admission was free, and 1500 persons were present.

**Publications.**—(1) Catalogue of the museum, 476 pp. and 100 plates, by C. Welch, 1903, price one shilling; (2) Brief Guide to the museum, by C. Welch, 1901, price threepence.

**Curator.**—C. WELCH, F.S.A.

LONDON (*continued*).

## The Guildhall Art Gallery.

**Governing Body.**—The Corporation of London.

**Staff.**—Director, clerk, and three attendants in uniform.

**Source of Income.**—The funds of the Corporation of London.

**Nature of Collections.**—Pictures (oil and water-colours), drawings, sculpture.

**Times and Terms of Admission.**—Open daily, Oct. 1 to March 1, 10 a.m. to 4 p.m.; other months, 10 a.m. to 5 p.m. Admission free.

**Number of Visitors.**—About 275,000 annually.

**Loan of Collections, &c.**—Pictures are sometimes lent.

**Income and Working Expenses.**—Average about £1,800 a year.

**Exhibition Space.**—Five galleries: area, (1) 70 ft. x 30 ft., (2) 40 x 25, (3) 20 x 25, (4) 30 x 30, (5) 14 x 10.

**Publications.**—Catalogue of works of art.

**General Information.**—Special loan collections are exhibited from time to time.

**Director** —A. G. TEMPLE, F.S.A.

**LONDON—(Continued).****The Donaldson Museum.**

**Governing Body.**—The Council of the Royal College of Music, under the presidency of H.R.H. the Prince of Wales.

**Staff.**—A Curator and a caretaker.

**Nature of Collections.**—Ancient musical instruments and various objects pertaining to music. These are arranged upon cases and tables of the 16th century, richly carved.

**Times and Terms of Admission.**—Open during term time of the R.C.M. free, on application at the office.

**General Information.**—It was presented in 1894 by Mr. George Donaldson to the then Prince of Wales, to form the permanent museum of the Royal College of Music.

**Curator.**—GEORGE DONALDSON.

LONDON (*continued*).

## Sir John Soane's Museum and Library.

13, LINCOLN'S INN FIELDS.

**Governing Body.**—Eight trustees. Of these, four are life trustees (Dr. A. WATERHOUSE, R.A., Mr. E. FRESHFIELD, F.S.A., Mr. J. M. ANDERSON, F.R.S.E., and Mr. ASTON WEBB, R.A., F.S.A.); four are appointed by the following bodies:—the Royal Academy, the Royal Society, the Society of Arts, the Societies of Antiquaries, the Corporation of London.

**Staff.**—Curator, inspectress, hall porter, two housemaids, and—during the six months that the museum is open to the public five attendants.

**Source of Income.**—Endowment Fund left by Sir John Soane (£30,000 at 2½ %) and rent of house, No. 12, adjoining museum (£300 a year).

**Nature of Collections.**—Art and Archæology. They include oil paintings (Turner, Hogarth, Reynolds, Lawrence, Fra Bartolomeo, &c.); water-colours, drawings, sculpture, and casts; architectural fragments and casts; architectural drawings (Vasari, Piranesi, Inigo Jones, Christopher Wren, &c.); furniture, Napoleonic relics; Roman busts, reliefs, altars, urns, and vases; Egyptian antiquities (including the sarcophagus of Seti); antique gems, Greek vases, &c. The library contains many rare books and illuminated MSS. of the first four editions of Shakespeare, and MS. of Tasso's "Gierusalemme Liberata."

**Times and Terms of Admission.**—Open from 11 a.m. to 5 p.m. on Tuesdays, Wednesdays, Thursdays, and Fridays, from March 1 to August 31. Cards for private days and for students may be obtained from the curator; but strangers in London and foreigners are exempted from this formality. The museum is never really closed, but can always be seen on application, except on Sundays and Bank Holidays.

**Number of Visitors.**—About 7,500 annually, and about 520 students and readers. The numbers have for some time past shewn a steady increase.

**Lectures.**—The present curator is in the habit of conducting clubs, societies, and guilds over the museum on Saturday afternoons, and giving an account of the exhibits. These visits are much appreciated and well attended, but the small size of the rooms compels him to limit the number of those attending.

**Income and Working Expenses.**—Income, £1050 per annum, covers expenses and leaves a small balance which is devoted to repairs.

**Exhibition Space.**—Sir John Soane's private house. It is kept as he left it. The curator and servants reside in the upper part of the house (second and third floors).

**General Information.**—The museum was settled on the nation by Special Act (3rd William IV.). For some years it was rather neglected by the public, but is gradually becoming better known and visited. The average annual number of visitors from 1883 to 1893 was 3,200; from 1893 to 1903, 7,000. Students and readers have risen from an average of 30 to one of over 400. Owing to the decrease in the income (due partly to the lowering of the rate of interest on Consols and partly to the enormous increase of rates and taxes) the trustees are unable to open the museum to the public for more than six months in the year. Nothing may be added to the collection, which must be maintained as left by Sir John Soane (died 1837). The museum and house are interesting as a specimen of what a gentleman of taste and means thought to be the proper thing at the beginning of the 19th century. The curious way of disposing of a very large collection in what is by no means a large house is deserving of study. Not an inch is wasted, and the arrangement of folding panels, by which the wall space is more than doubled, is most ingenious.

**Curator.**—GEORGE H. BIRCH, F.S.A.

LONDON (*continued*).**Museum of the Pharmaceutical Society of Great Britain.**

17, BLOOMSBURY SQUARE.

**Governing Body.**—Council of the Pharmaceutical Society of Great Britain.

**Staff.**—A Curator.

**Source of Income.**—Funds of the society.

**Nature of Collections.**—Materia Medica of all countries. Herbaria of medicinal and economic plants.

**Special Collections.**—1. The Hanbury Herbarium and Materia Medica collection. 2. The Pereira Collection of Materia Medica. 3. The Howard Collection of Cinchona barks and alkaloids. 4. The Maton Collection of Old English Materia Medica. 5. Dr T. Porter Smith's Collection of Chinese Materia Medica. 6. A Collection of Essential Oils, &c., illustrating R. T. Baker and H. Smith's Research on the Eucalypts. 7. Complete Collection of Essential Oils presented by Messrs. Schimmel and Co., Leipsig.

**Times and Terms of Admission.**—Open to subscribers to the society. Visitors are admitted free under certain conditions, on application to the secretary or curator.

**Lectures.**—No course of lectures is given, but specimens are shown and described at evening meetings of the society.

**Loan of Collections, &c.**—Small collections are lent to members, under certain conditions, to illustrate lectures given in the provinces.

**Exhibition Space.**—Five rooms. Of these, one is devoted to animal materia medica, three to vegetable materia medica, one to herbaria and special collections of materia medica.

**Publications.**—Catalogue of the museum (1878). Catalogue of the Hanbury Herbarium (1892). Catalogue of the General Herbarium (1896). Museum Report (1895 and 1903). Also, various papers in the Journal of the society (1843 to date).

**Curator.**—E. M. HOLMES, F.L.S.

**LONDON** (*continued*).**Museum of the Palestine Exploration Fund.**

**Governing Body.**—Executive Committee of the Society.

**Staff.**—No separate staff. The acting secretary is the curator.

**Source of Income.**—Subscriptions and sale of publications.

**Nature of Collections.**—Confined to objects found in or relating to Palestine. They include implements (stone, bronze, iron), pottery, various objects of stone and wood, textiles, and costumes, natural history specimens, casts of inscriptions and various objects, model of buildings, maps (printed and relief), pictures and photographs. There is also a library of books on Palestine.

**Times and Terms of Admission.**—Open daily. 10 a.m. to 5 p.m. (Saturday, 10 a.m. to 1 p.m.) Admission free.

**Exhibition Space.**—Two rooms, used as offices, and fitted with glass cases for the specimens.

**Publications.**—Catalogue of Library (guide-book unnecessary).

**General Information.**—No accessions have been received for some years, in consequence of the refusal of the Turkish government to allow the exportation of antiquities. Many of the society's most valuable finds have been presented to the British Museum.

**Acting Secretary.**—GEORGE ARMSTRONG (38, Conduit Street, W.).



LONDON (*continued*)

## The Parkes Museum.

**Governing Body.**—The Council of The Sanitary Institute.

**Staff.**—Secretary and Director, Curator, attendant.

**Source of Income.**—Maintained entirely from the funds of The Sanitary Institute.

**Nature of Collections.**—Hygiene (including sanitary apparatus and appliances), food preparations, &c., illustrative of physiology.

**Times and Terms of Admission.**—Open daily, 10 a.m. to 6 p.m. (Monday, to 8 p.m.). Admission free.

**Number of Visitors.**—In 1903, general visitors estimated at 8,000; students at demonstrations, 1,243; at lectures, 3,425.

**Lectures.**—Systematic courses of lectures form a marked feature of the work of the museum. They are attended by sanitary officers, students, &c. In addition to this, inspections and demonstrations, to which the attendance is, in some cases, necessarily limited, are given by experts in sanitary science. Syllabuses of these lectures and inspections are issued.

**Loan of Collections, &c.**—A large number of lantern slides, illustrating hygienic subjects is lent out to members of the institute.

**Income and Working Expenses.**—The annual expenditure on the museum is about £700 (supplied by the Sanitary Institute).

**Exhibition Space.**—Ground floor, 2,488 sq. feet; Gallery, 340 sq. feet.

**Publications.**—A catalogue of the museum and a guide are published.

**General Information.**—The museum was founded as a memorial to the late Dr. E. A. PARKES. There is a large reference library of works on all branches of Hygiene and Sanitation in connection with the museum.

**Curator.**—C. J. KILGALLIN.

**Secretary and Director.**—E. WHITE WALLIS, F.S.S.

LONDON (*continued*).**Museum of Artillery (Rotunda, Woolwich).**

**Governing Body.**—Committee of the Royal Artillery Institution.

**Staff.**—A custodian, an armourer, two cleaners.

**Source of Income.**—Army estimates.

**Nature of Collections.**—Artillery, fire-arms, armour, weapons ancient and modern), and models.

**Times and Terms of Admission.**—Open daily (except Sundays), 10 a m. to 12.45 p.m., and 2 p.m. to 5 p.m. in summer, and to 4 p.m. in winter. Admission free.

**Exhibition Space.**—Inside, about 10,000 sq. ft.; outside, about 40,000 sq. ft.

**Publications.**—Official catalogue.

Any communication should be directed to the Secretary, R.A. Institution, Woolwich.

LONDON (*continued*).**The Carlyle's House Memorial Trust.**

24, CHEYNE ROW, CHELSEA, S.W.

**Governing Body.**—A committee of management, consisting of the Rector of Chelsea, the American Ambassador, the keeper of printed books in the British Museum, and four others, nominated by the general body of members of the trust, who do not exceed twenty-five. Mr. G. A. LUMSDEN, one of the four thus nominated, acts as secretary.

**Staff.**—A woman caretaker, who lives on the premises.

**Source of Income.**—1. Admission fees. 2. Annual subscriptions. 3. Donations. 4. Sale of catalogues, photographs, &c.

**Nature of Collections.**—Furniture, prints, manuscripts, &c., formerly the property of Thomas Carlyle, or in some special way connected with him.

**Times and Terms of Admission.**—Open 10 a.m. to sunset throughout the year (except on Sundays). Admission one shilling, except on Saturday, when it is sixpence. Parties of ten or more admitted at any time at the rate of sixpence each.

**Number of Visitors.**—Annual average rather over 2000. The number for 1903, about 2800.

**Income and Working Expenses.**—Income about £130 a year, expenditure about £110.

**Exhibition Space.**—The whole house is on view. It consists of two basement kitchens; dining room, back dining room, and small back room on ground floor; drawing room, bedroom, and small back room on first floor; two bedrooms and small back room on second floor; double-walled attic-study on third floor.

**Publications.**—Catalogue, "Sartor Resartus" and "Heroes and Hero-Worship."

**General Information.**—The trust was formed in 1895, on a permanent basis, after the purchase of the house by public subscription. The freehold of the house, which is quite unincumbered, is the property of the trust, which possesses no funds, but manages to pay its way easily from year to year. Any surplus receipts have to be devoted to purposes of the trust, no member of which may receive anything from such source. This is the condition on which the Board of Trade granted the licence entitling the trust to become a corporate body.

**Secretary.**—G. A. LUMSDEN.

LONDON (*continued*).**The Essex Museum of Natural History (The Passmore Edwards Museum), Stratford.**

**Governing Body.**—The Corporation of West Ham and the Essex Field Club (see last paragraph).

**Staff.**—A curator and a museum steward, with two attendants.

**Source of Income.**—Grants from the Education Fund of the Corporation of West Ham ("Whisky money" and Technical Instruction rate), a grant of £50 a year from the Essex Field Club. Purchases are also made from a fund subscribed by members and friends of the club.

**Nature of Collections.**—Illustrative of the Natural History and Pre-historic Archaeology of Essex. The library of the Essex Field Club is housed in the building.

**Special Collections.**—The geological collections of Horace Brown and of W. H. Dalton.

**Times and Terms of Admission.**—Open daily (except Wednesdays), also in the evenings. Open on Sunday afternoon and evening. Admission free.

**Lectures.**—Lectures relating to natural history and museum subjects are occasionally given in the institute. The meetings of the Essex Field Club are open to visitors by invitation.

**Income and Working Expenses.**—The nominal sum allotted to the museum for establishment charges, salaries, &c., is about £1000 a year: but out of this a large sum is retained as capital to provide for future needs, and the actual expenditure over specimens, &c., is about £200 per annum.

**Exhibition Space.**—The whole building will probably be devoted to the Natural History Museum, except one room, which will be kept for art exhibits.

**Publications.**—A few museum handbooks are published. Papers relating to the museum appear in the *Essex Naturalist*, the organ of the Essex Field Club (published quarterly).

**General Information.**—The museum building is the property of the West Ham Corporation, the specimens are the joint property of the Corporation and the Field Club. The latter body appoints the curator and is responsible for the arrangement of the collections, the latter undertakes the care and maintenance of the building. The objects of the museum are mainly—(1) to educate the public by the exhibition of well-arranged and labelled collections, (2) to conserve specimens of local species, (3) to encourage local observation and research. Two strong points in the plan of the museum are descriptive labelling and a careful restraint in the exhibition of specimens. Ample space is provided for the display of objects exhibited. A reference library of works on natural history is in course of formation.

**Curator.**—WM. COLE, F.L.S.

**LONDON** (*continued*).**Museum of Guy's Hospital Medical School.**

**Governing Body.**—

**Staff.**—A Curator.

**Nature of Collections.**—I. HUMAN AND COMPARATIVE ANATOMY. This collection contains the models of human anatomy made by the late Mr. Towne, from dissections by the late Mr. John Hilton. The specimens illustrating comparative anatomy are over 2000 in number, and are arranged specially so as to facilitate the systematic study of the subject.

II. PATHOLOGICAL ANATOMY. This collection contains upwards of 5000 preparations, supplemented by more than 2000 drawings, representing the recent appearances of many of the specimens, or the state of the parts during life. The North Museum is devoted to diseases of the bones, joints, ligaments, muscles, heart, and nervous system; on the floor are models, prepared and arranged by the Curator of the Dental Museum.

The museum is so arranged that students may use it as a reading room. The Middle Museum contains a large number of preparations of obstetric and gynecological interest. In the South Museum are wax models of skin diseases (executed by the late Mr. Towne), models of skin affections caused by various morbid states of the viscera; models illustrating the effects of different poisons on the stomach, &c. The shelves in the galleries are occupied by preparations illustrating pathological conditions of lungs, liver, supra-renal bodies, kidneys, and genito-urinary system.

**Terms of Admission.**—The museum is open to medical practitioners and students for inspection on presentation of their visiting card, and to others by special leave to be obtained from the superintendent of the hospital or the dean of the medical school.

**Exhibition Space.**—Two rooms and a long gallery devoted to human and comparative anatomy, three rooms (with galleries) to pathological anatomy.

**Publications.**—The revised catalogue is in process of completion. but the first two volumes, dealing with the medical pathological specimens have been published.

**Curator.**—J. FAWCETT, M.D.

**LONDON** (*continued*).**The Horniman Museum (Forest Hill).**

**Governing Body.**—The London County Council.

**Staff.**—Advisory curator, resident curator, natural history assistant, librarian, six attendants in uniform.

**Source of Income.**—Rates.

**Nature of Collections.**—Ethnology, Art, Archæology, and Natural History. In the last-named section, the entomological collections are especially noteworthy. The museum contains a vivarium, an aquarium, and a reference library.

**Times and Terms of Admission.**—Open daily (except on Christmas Day), from 2 p.m. to 9 p.m.; on Bank Holidays, from 10 a.m. to 9 p.m. Admission free.

**Number of Visitors.**—Attendance during 1902 was 238,589.

**Lectures.**—Public lectures and demonstrations are given by the advisory curator, the resident curator and others.

**Income and Working Expenses.**—

**Exhibition Space.**—Two galleries, 100 ft. × 47 ft. each, and three smaller rooms.

**Publications.**—Guide-book, Annual Report, &c,

**Resident Curator.**—R. QUICK, M.J.S.

**LONDON** (*continued*).**Museum of the London Missionary Society.**

The specimens are at present warehoused, pending the completion of the new premises in New Bridge Street, E.C. When these are finished (about the end of 1904), a portion will be set apart as a museum.

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LONDON (*continued*).**Museum of the Royal College of Surgeons of England.**

**Governing Body.**—The Council of the Royal College of Surgeons of England.

**Staff.**—A conservator, a pathological curator, anatomical assistant, prosector, and several assistants and attendants.

**Source of Income.**—Funds of the Royal College of Surgeons of England.

**Nature of Collections.**—(1) NORMAL ANATOMY, Human and Comparative; (2) HUMAN, COMPARATIVE, AND VEGETABLE PATHOLOGY; (3) TERATOLOGY, Human, Comparative, and Vegetable; (4) DRAWINGS AND PHOTOGRAPHS, illustrating diseases; (5) CASTS.

**Special Collections.**—The Hunterian collections, also those of Lever, Brookes, Heaviside, Langstaff, South, Howship, Taunton, Liston, Walker, Cooper, and Davis.

**Times and Terms of Admission.**—Open on the first four days of the week, from 10 a.m. to 5 p.m. in summer, and 10 a.m. to 4 p.m. from Nov. 1 to end of February. Closed during September. Admission (free) by order of Fellows or members, or on application to the Secretary or the Conservator.

**Lectures.**—The following are given annually—Twelve Hunterian lectures, three Aëris and Gale lectures, three Erasmus Wilson lectures, one Bradshaw lecture.

**Exhibition Space.**—Five galleries.

**Publications.**—Descriptive Catalogues of—1. Physiological Series of Comparative Anatomy. 2. The Osteological Series. 3. The Histological Series. 4. Fossil Organic Remains (three parts). 5. Pathological Specimens (four volumes, supplement, and sixteen appendices). 6. Calculi (two parts and supplement). 7. Dermatological Collection. 8. Teratological Collection. Catalogues of—1. Specimens illustrating Osteology and Dentition (three parts). 2. Dried Plants and Invertebrate Animals. 3. Entozoa. Observations on Geology and Memoranda on Vegetation, by John Hunter. List of Dissections and Models, illustrating human anatomy. Memoir on the Pearly Nautilus. Description of the Skeleton of an extinct gigantic Sloth.

**General Information.**—The nucleus of the museum is the collection of John Hunter, bequeathed to the government under certain conditions. The government handed it over to the College of Surgeons, under certain conditions, and made grants amounting to £42,500. The college added £21,000, and with this the museum was opened in 1813. Extensions have been made in 1835, 1847, 1852, and 1888 by the college at a total cost of £100,000, towards which the government contributed £15,000. The museum in its present form was completed in 1891.

**Conservator.**—Professor CHARLES STEWART, LL.D., F.R.S.



**LONDON** (*continued*).**Stepney Borough Museum.**

77, WHITECHAPEL HIGH STREET.

**Governing Body.**—The Libraries Committee of the Stepney Borough Council.

**Staff.**—Curator, attendant, boy.

**Source of Income.**—Allowance from Libraries Rate.

**Nature of Collections.**—Chiefly Natural History.

**Times and Terms of Admission.**—Open daily. On Saturday, 10 a.m. to 10 p.m.; other week-days, 12 noon to 10 p.m.; Sunday, 3 p.m. to 10 p.m. Admission free.

**Number of Visitors.**—For the year ending March 31, 1903, 69,797.

**Lectures.**—Public lectures given monthly, from October to June. During the year ending March 31, 1903, 126 demonstrations were given to schools, and 4,918 children received special lessons.

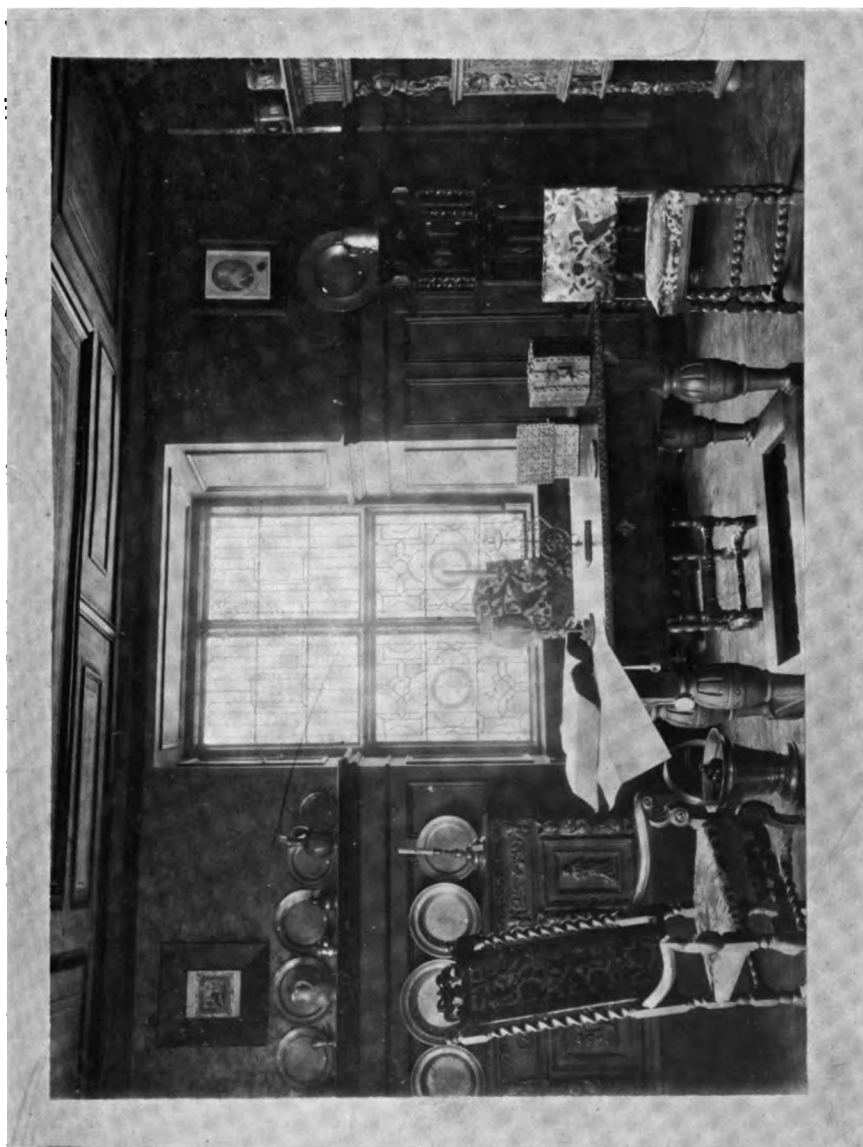
**Loan of Collections, &c.**—A few objects are lent to teachers in the schools of the district for class teaching.

**Income and Working Expenses.**—Allowance for the year ending March 31, 1904, £398.

**Exhibition Space.**—The main collection is at the Whitechapel Library, and is contained in a room 44 ft. x 22 ft. A few cases are exhibited in the other libraries of the borough—Limehouse, Mile End, and St. George's in the East. There is a small Nature Study Museum in the Recreation Ground, St. George's in the East, containing vivaria and fresh-water and marine aquaria. The observatory hive of bees is kept in a building in the Recreation Ground, St. George's in the East.

**General Information.**—The committee aims at making the museum interesting and instructive to the general visitor, and also helpful to schools in the neighbourhood. To attain the latter object, demonstrations are arranged for in the museum, and specimens are lent out to schools.

**Curator.**—Miss KATE M. HALL.





GOTHENBURG MUSEUM.

Interior, temp. Gustaf III., with bust of the monarch and music reminiscent of the folk poet and singer — Bellman.

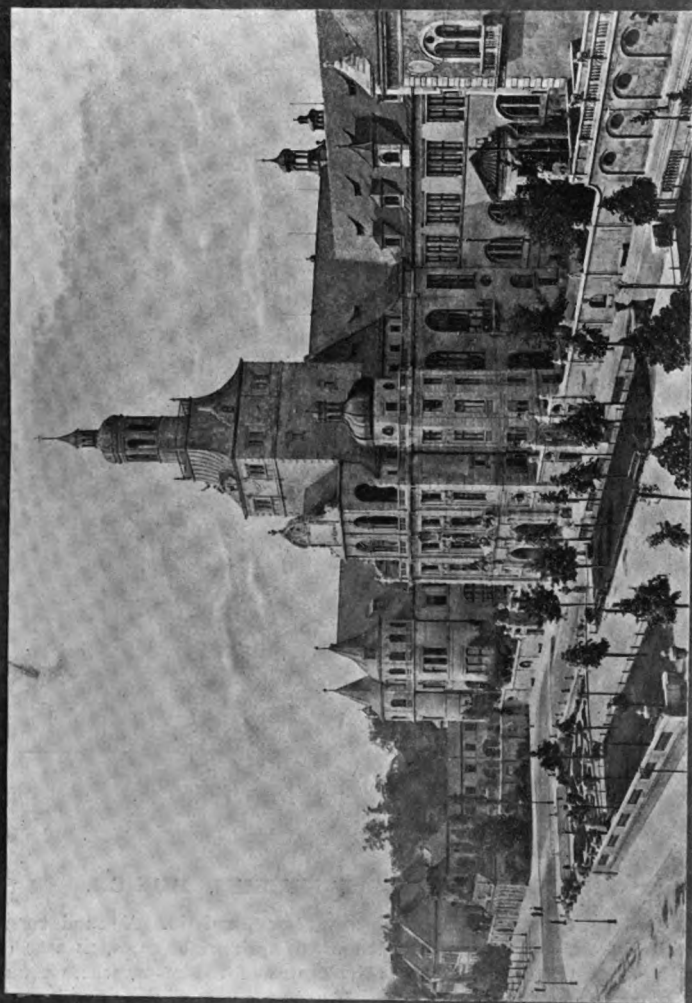


GOTHENBURG MUSEUM.

Cottage interior exhibited in an ordinary museum-gallery, the wall nearest the spectator being removed.



GOTHENBURG MUSEUM.  
Hall of ecclesiastical art.



NATIONAL BAVARIAN MUSEUM, MUNICH.

View of the main front from the south-east.



## NATIONAL BAVARIAN MUSEUM, MUNICH.

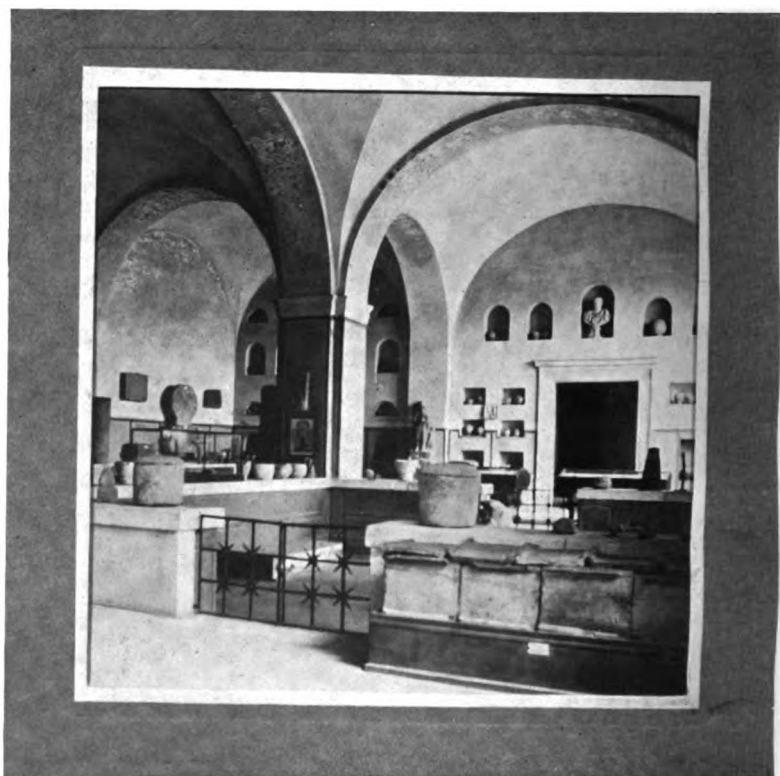
Room 51: works in copper, bronze, brass, and tin. A round room, with windows on one side, between which are upright cases, as seen on right of plate, directed towards the centre of the room, where stands a bronze Mercury (left of plate). The lower part of the opposite wall is covered with a patterned stuff, against which are the cases for the smaller ornamental work. Above these are portraits of XVI. and XVII. Cent., between them are bronze reliefs of the four seasons, and below are church bells of XV. Cent. The photograph was taken with the intention rather of showing the items in the arrangement than of reproducing the picturesque effect of the whole.



## NATIONAL BAVARIAN MUSEUM, MUNICH.

Room 73: manuscripts, printing, and illustration. The ceiling is of painted wood, the frieze painted in Lombard style, walls pea-green, cases painted a streaked reddish brown. One case (not shown in plate) reproduces the old method of chaining books to lecterns. On the wall to the left are large coloured plates and calendars.





#### NATIONAL BAVARIAN MUSEUM, MUNICH.

Room 2 : Roman antiquities. The back wall is furnished with niches like those of a columbarium, containing vases, urns, and busts. Above the plaster is greyish, below are panels of greenish grey and of a dulled red, outlined in black and white. The floor is of black and white marble. Within the low wall is a mosaic pavement, forming an impluvium with its surroundings; the wall around it is coloured red, with an ornament in lines of white and dark green.



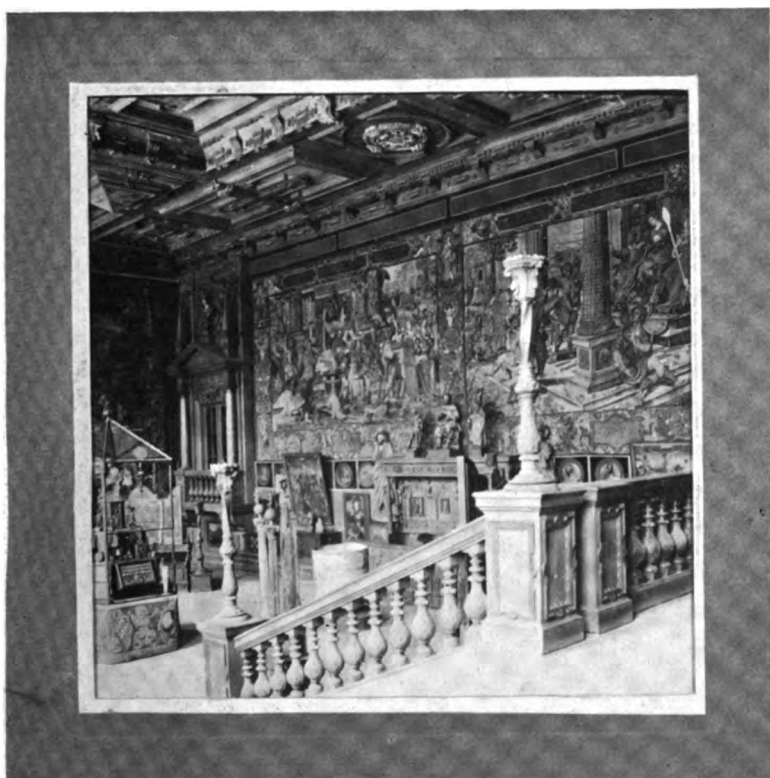
## NATIONAL BAVARIAN MUSEUM, MUNICH.

Room 5 : sculptures of the Romano-Christian period. The object of this plate is to show the small window on the right, specially introduced to throw light on the crucifix. This end of the room is copied from the apse of St. Paul's Church at Worms; the crucifixion group is cast in plaster from a wooden original at Wechselburg in Saxony; the painting behind it is newly done by Prof. Haggemiller.



#### NATIONAL BAVARIAN MUSEUM, MUNICH.

Room 15 : ecclesiastical ornament. A lofty vestibule is followed by a nave with five-vaulted roof, after a transept at Augsburg. On each side are five chapels, which serve for the display of altars and other fittings in different styles. One, however, is shut off as a treasury for gothic church-plate and valuable reliquaries.



#### NATIONAL BAVARIAN MUSEUM, MUNICH.

Room 22 : transition from Middle Ages to Renaissance. The ceiling is half of the wooden ceiling from the large hall at Dachau Castle (1564-7). The doors, stair-case, and other fittings are built to harmonise with this ceiling. The gold-worked tapestry represents scenes in the life of St. Paul. The ceiling requires a lofty room, but the next room (23), from the entrance to which this photograph was taken, is not so large or lofty ; hence the steps leading up to it. Note the specially designed show-case on the left.



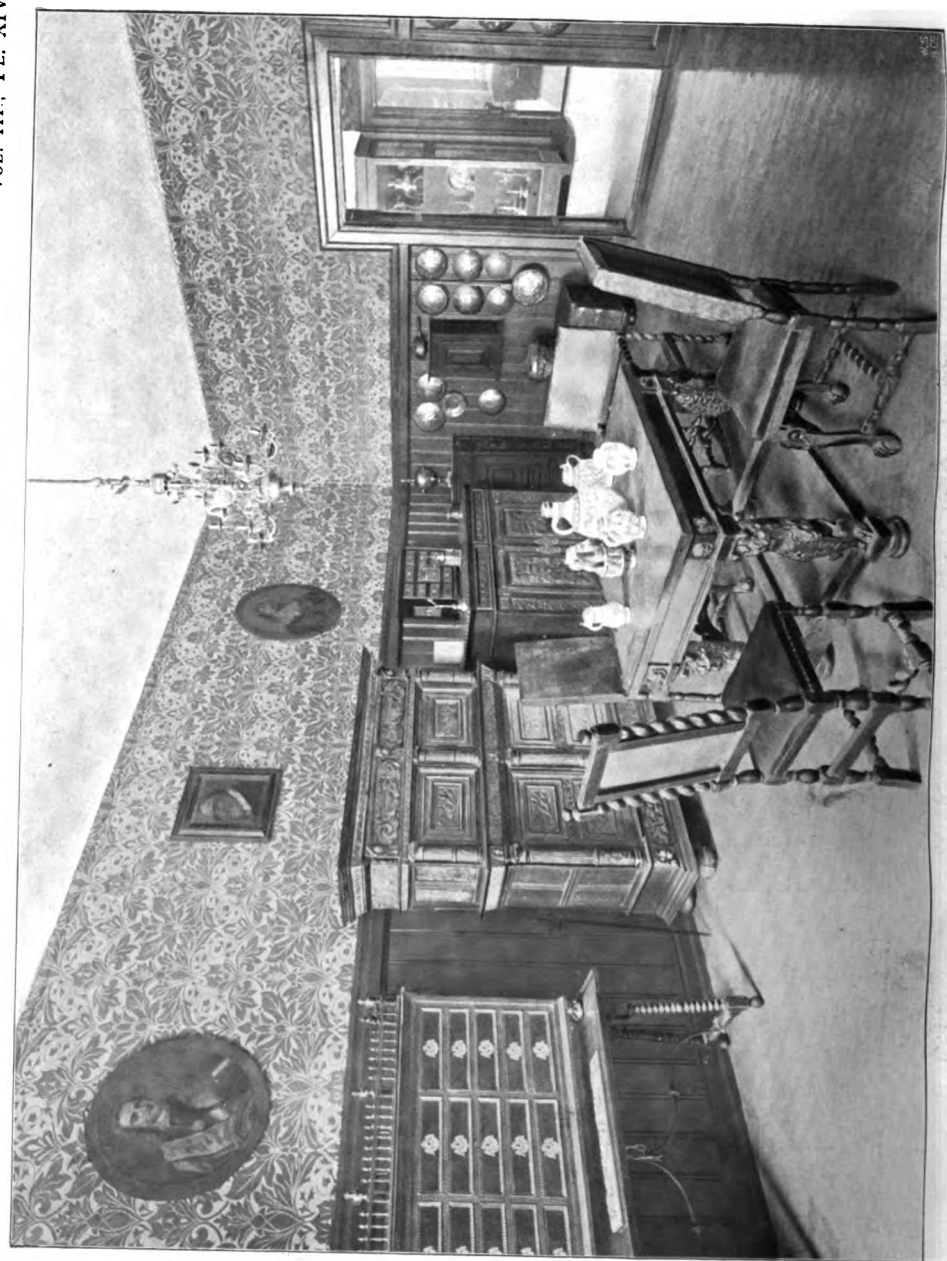
NATIONAL BAVARIAN MUSEUM, MUNICH.

Room 46: temp. Maximilian I. (1799-1825). This room, in Empire style, contains many gifts from Napoleon. One looks through into room 47, temp. Ludwig I. and Maximilian II. (1825-1864).



NORDENFJELDSKE MUSEUM, TRONDHJEM.

The Van de Velde room. The writing-table and its chair, and the electric chandelier are designed by Van de Velde; the cupboard by Majorelle; lamps by Tiffany; and the wall-paper by Otto Eckmann.



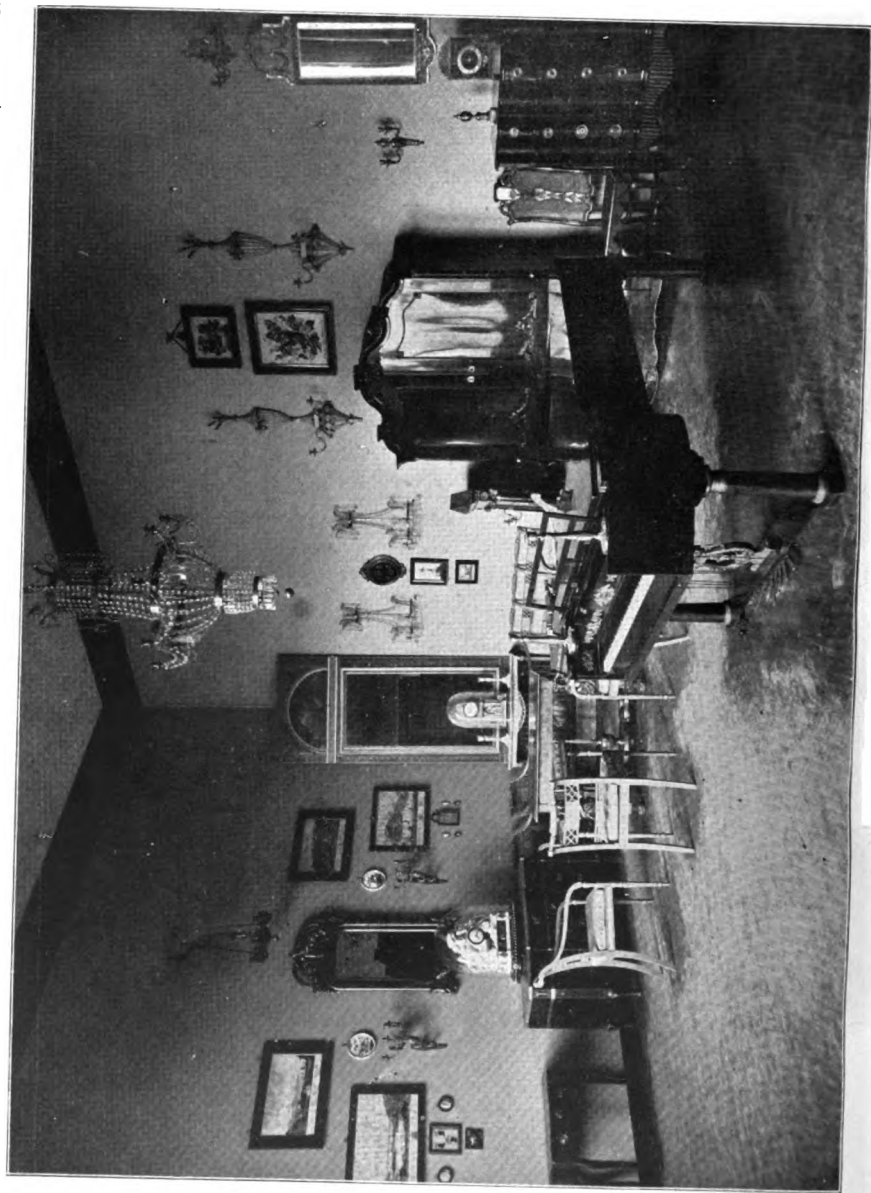
NORDENFJELDSKE MUSEUM, TRONDHJEM.  
The Renaissance room : for details of colouring, see Appendix II.





NORDENFJELDSKE MUSEUM, TRONDHJEM.  
The Rococo room.





VESTLANDSKE MUSEUM, BERGEN.

Room containing objects from end of XVIII. and beginning of XIX Centuries.



THE VIENNA "SECESSION,"

A room in the Exhibition of November-December, 1899,  
arranged by Professor J. Hoffmann.



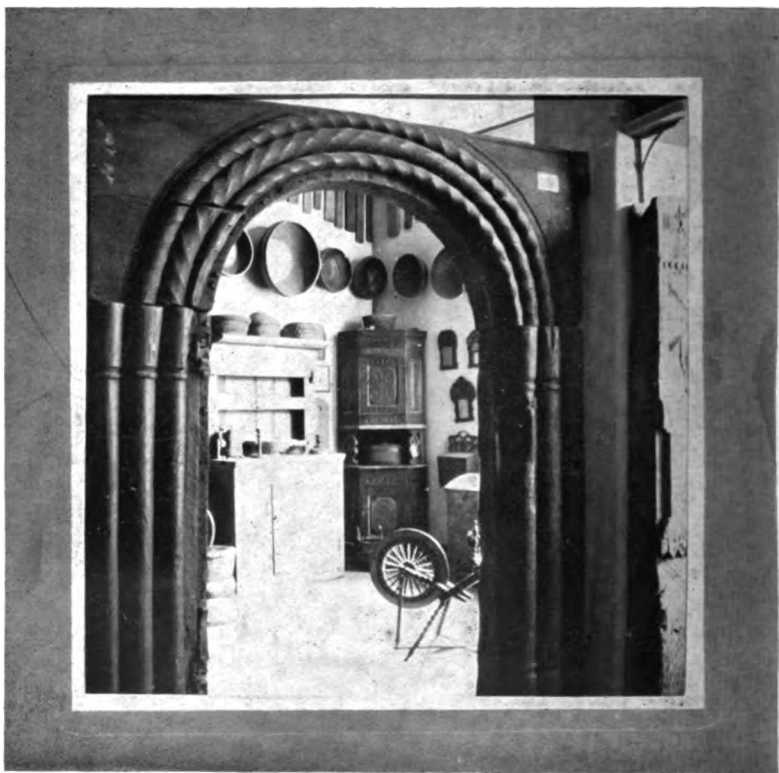
MUSEUM OF APPLIED ART, DÜSSELDORF.

Gothic Chapel: one of a series of small interiors on the first floor. See p. 113.



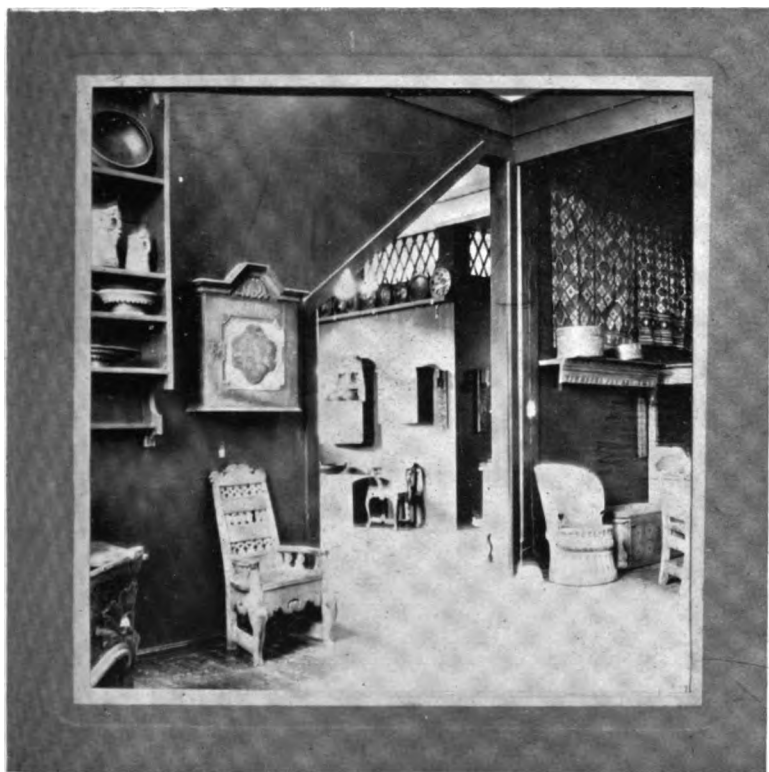
## MUSEUM OF APPLIED ART, DÜSSELDORF.

The Florentine room. The decoration is specially adapted to two works by della Robbia, of which one is seen over the main door, while the other is at the bottom of the frieze on the left hand, just outside the picture. This is an attempt to produce the conditions postulated on p. 81.



## BERGENS MUSEUM.

Room 15: objects from Telemark. Rooms 13, 14, 15 of this museum are arranged round an apse, and each room is divided by partitions, as shown on the left of the photograph, running from the windows half-way across the room. The bays thus formed are devoted to separate districts. See p. 115.



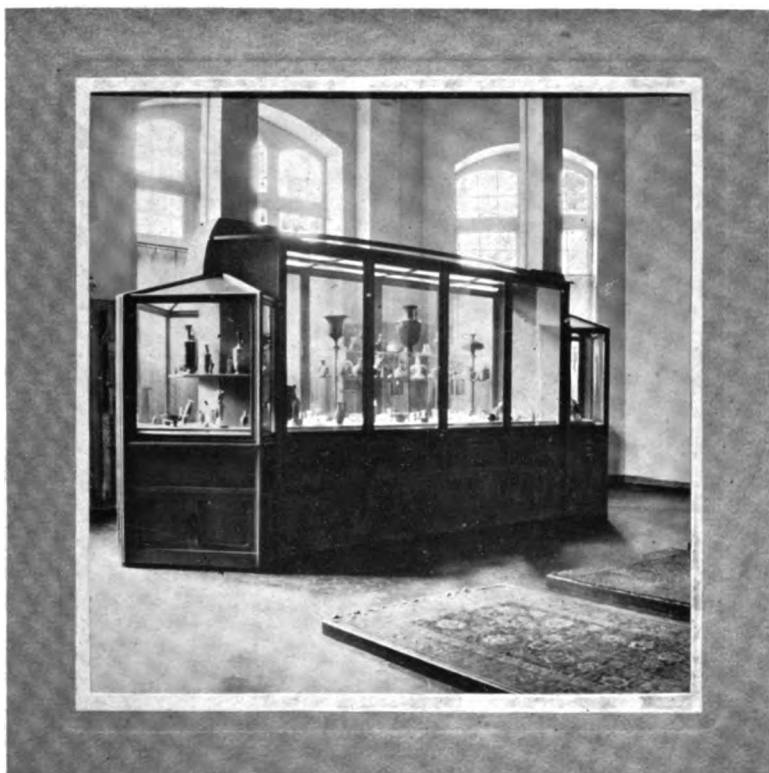
## FOLK MUSEUM, BYGDÖ, CHRISTIANIA.

A corner of the main building devoted to interiors. The observer is standing in the room containing objects from Telemark; those on the right of the door, from one valley, have a background of brown, like old wood, while those to the left, from another valley, have a green background; through the door is seen the Hallingdal room, the walls of which are red. See pp. 89 and 118.



## FOLKWANG MUSEUM, HAGEN I. W.

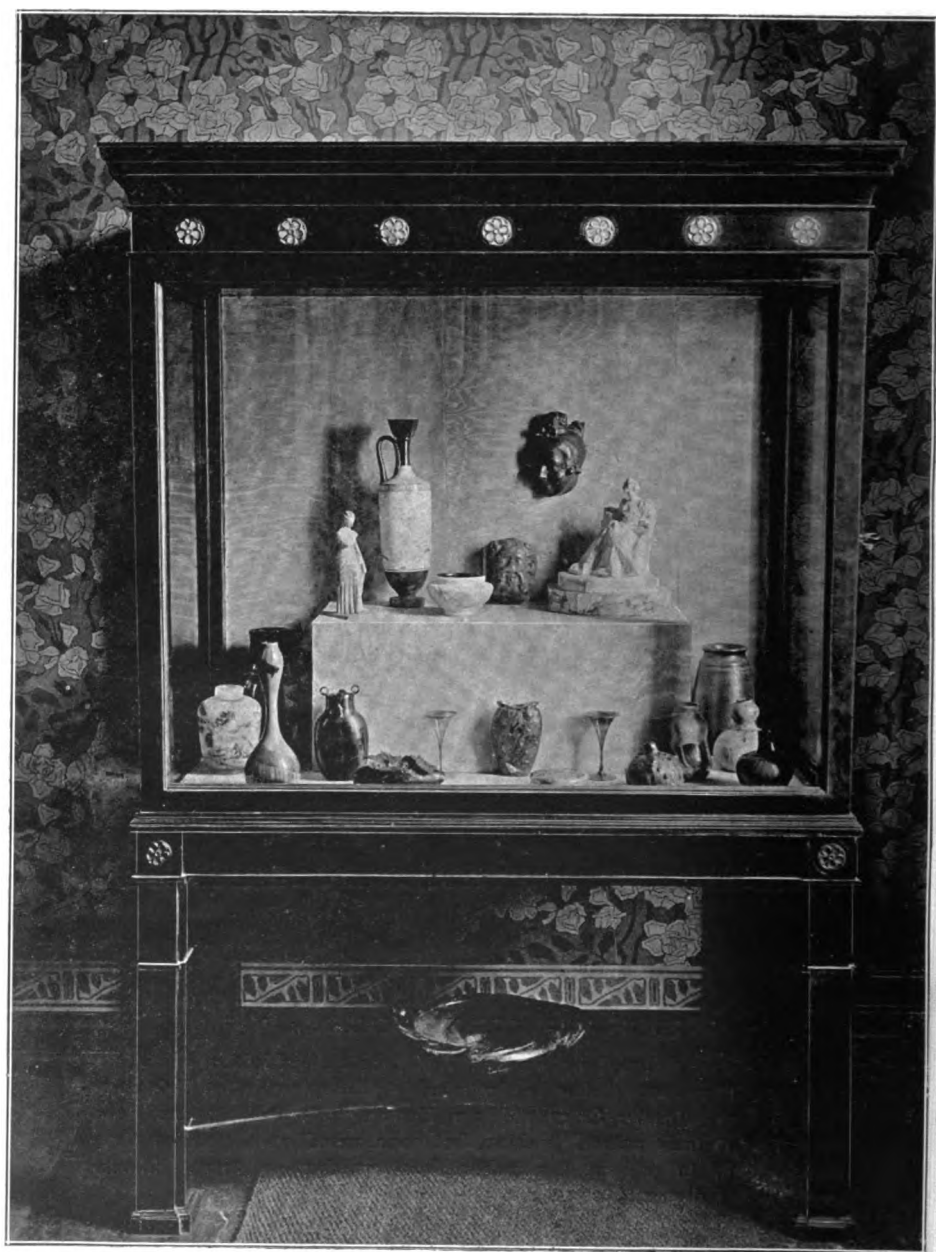
Landing, showing a case for small Japanese objects, above which are bronzes. The case is lined with violet silk, while green silk is used in another. The iron bannisters are painted red to match the tiles of the ground floor. The border of the window on the stairs carries the prevailing red of the ground floor upwards, and the prevailing violet and green of the first floor downwards.



## FOLKWANG MUSEUM, HAGEN I. W.

Oak Case, designed by Van de Velde, for the exhibition of antique pottery. The space below is furnished with cupboards and drawers. (See p. 122). In the foreground are Eastern rugs, laid on the floor, since this is their natural position, but each raised on a platform three inches high, to prevent the public from walking on them. Similar methods are discussed on p. 114.





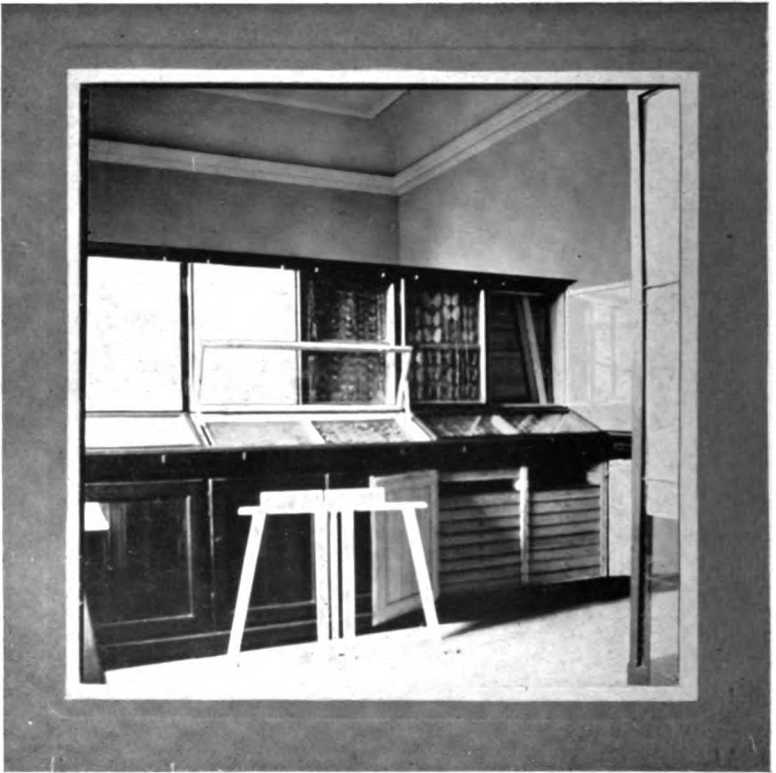
NORDENFJELDSKE MUSEUM, TRONDHJEM.

Collector's Cabinet, designed by G. Kielland, from a sketch by Jens Thiis, described on p. 121



NATIONAL BAVARIAN MUSEUM, MUNICH.

Specially designed case for ecclesiastical ornaments of the late Roman period. For description, see p. 121.



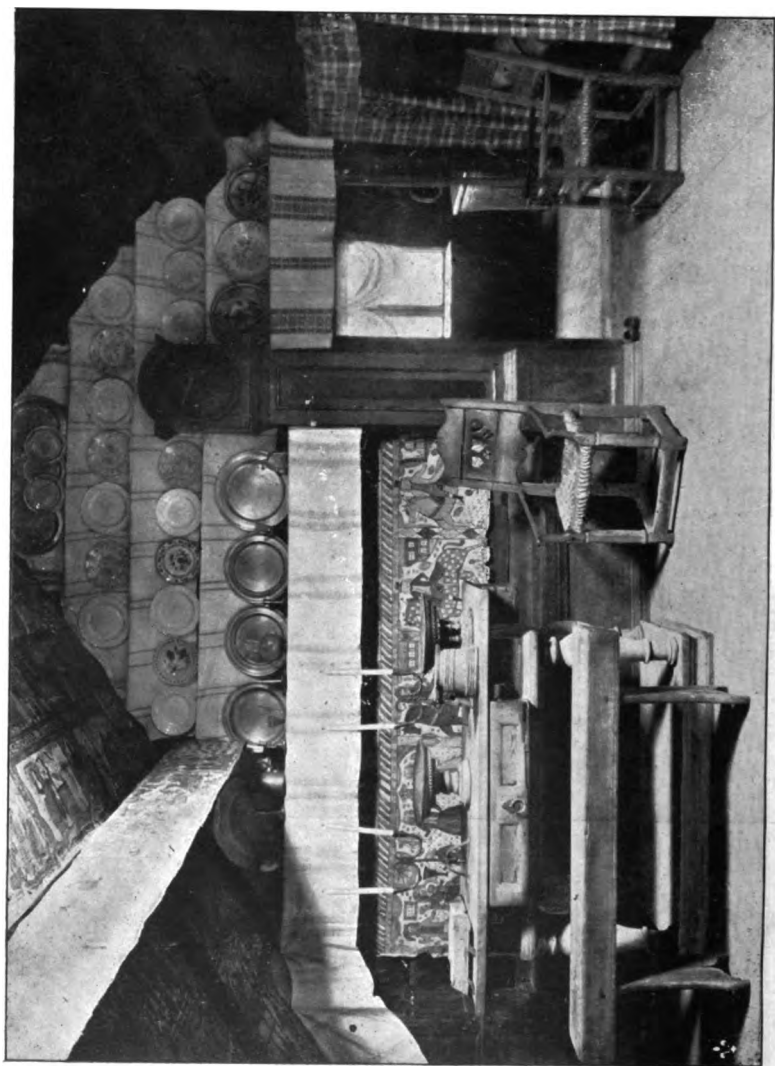
PROVINCIAL MUSEUM, HANNOVER.

A case with interchangeable drawers for the exhibition and storage of Lepidoptera. For complete description, see p. 123.



OPEN-AIR MUSEUM, SKANSEN, STOCKHOLM.

Approach to a farm-house, from Oktorp in Halland. The child is sitting beside the well.



OPEN-AIR MUSEUM, SKANSEN, STOCKHOLM.

Room in same farm-house as Pl. XXVII. On the right is a bed; behind the table, is a peasant painting of the Adoration of the Magi.

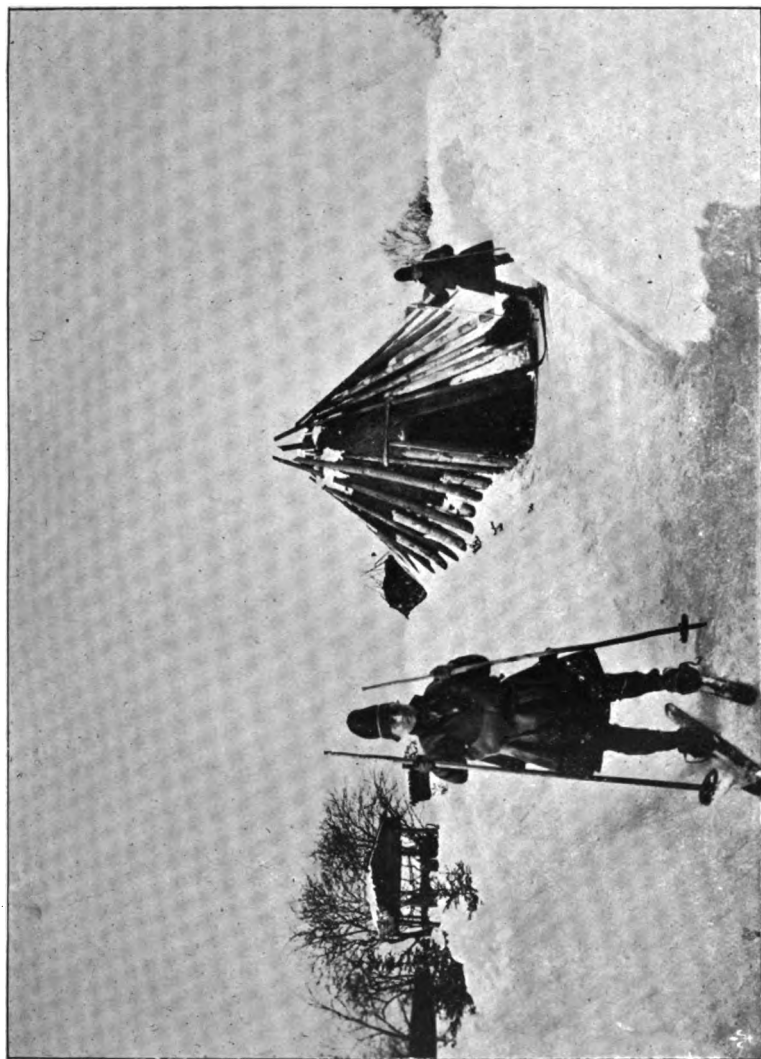


OPEN-AIR MUSEUM, SKANSEN, STOCKHOLM.

Primitive stone hut, from Blekinge, in S. Sweden, with pig-stye on the right. A belfry, from Jemtland, N. Sweden, in the background.



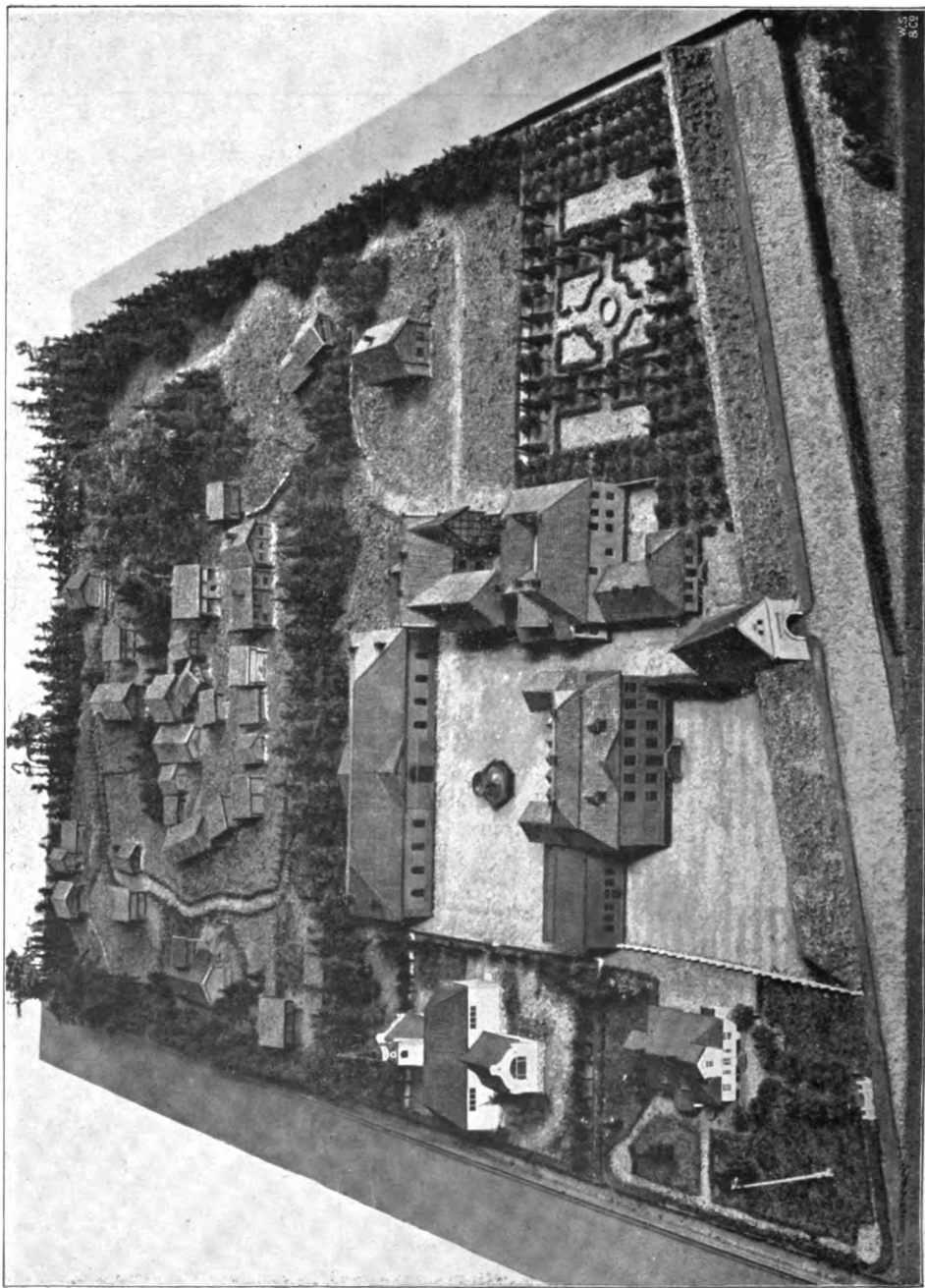
OPEN-AIR MUSEUM, SKANSEN, STOCKHOLM.  
Old cottage, from Lake Hornborga, S. of Lake Wener.



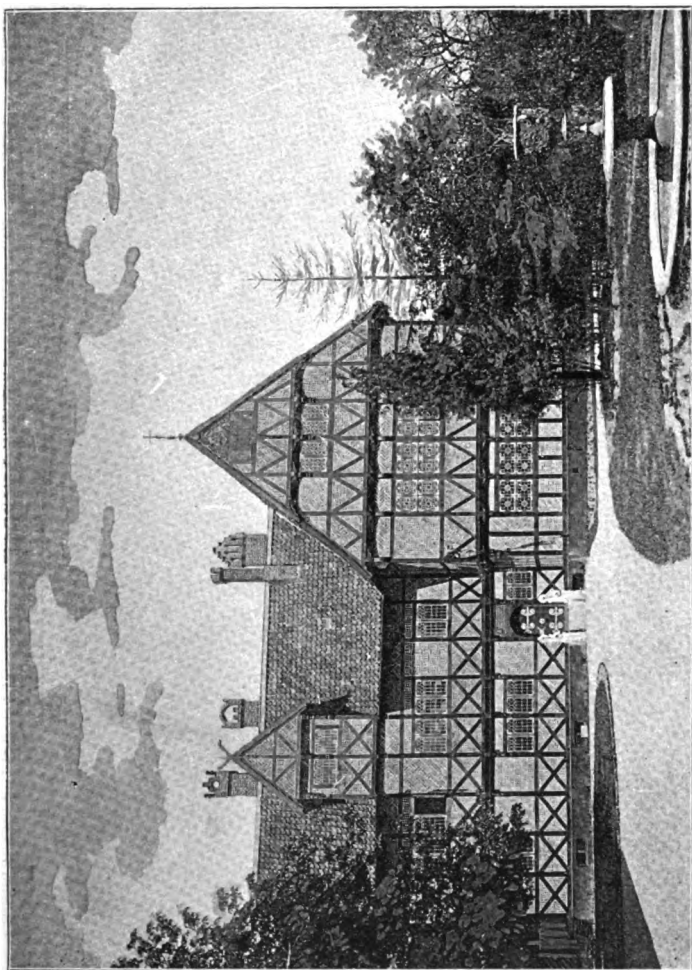
OPEN-AIR MUSEUM, SKANSEN, STOCKHOLM.  
Part of the Lapp encampment, with Lapps on snow-shoes.



in the same way as the old one, but the new one is more modern and more comfortable.

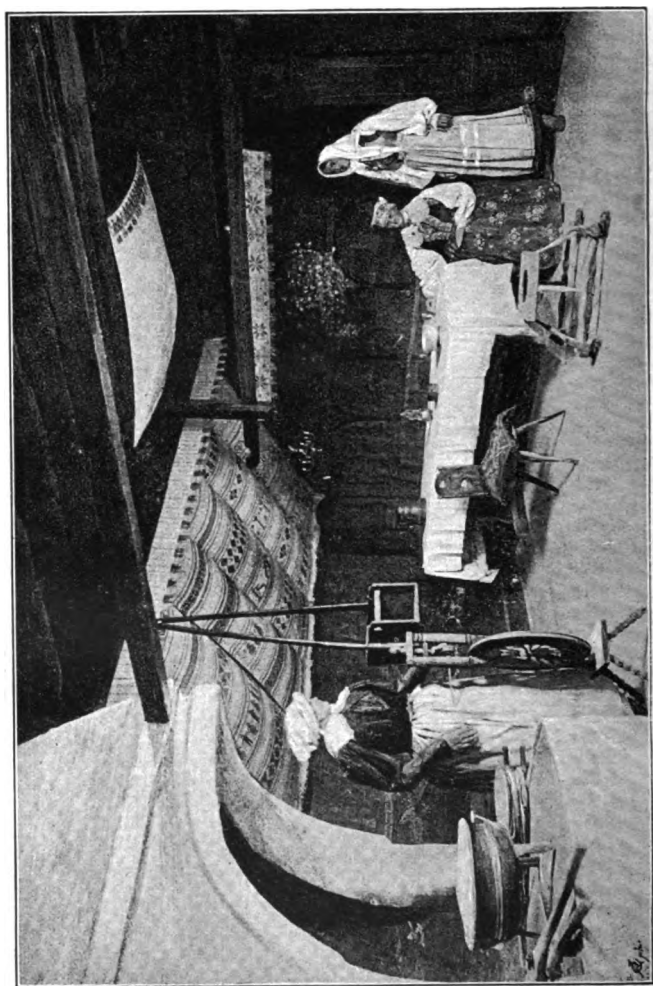


MODEL OF THE NORSE FOLK-MUSEUM ON BYGDÖ.



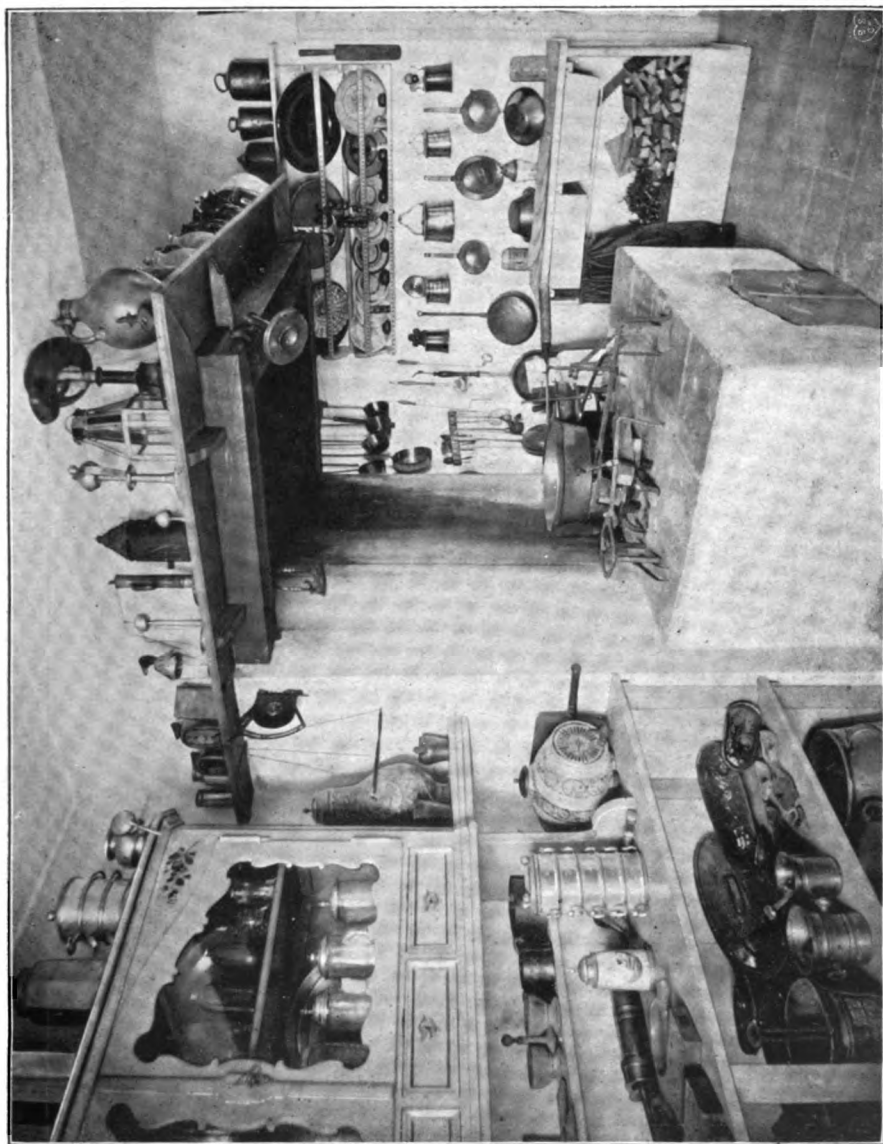
KULTURHISTORISKA MUSEUM, LUND.

Burgher house of XV. and XVI. Centuries, brought from Malmö. The interior of the ground floor is on exhibition ; the upper storeys contain offices and living rooms.



KULTURHISTORISKA MUSEUM, LUND.

Room in the farm-house from Blekinge. Models represent the mistress visited by two friends from East Blekinge.



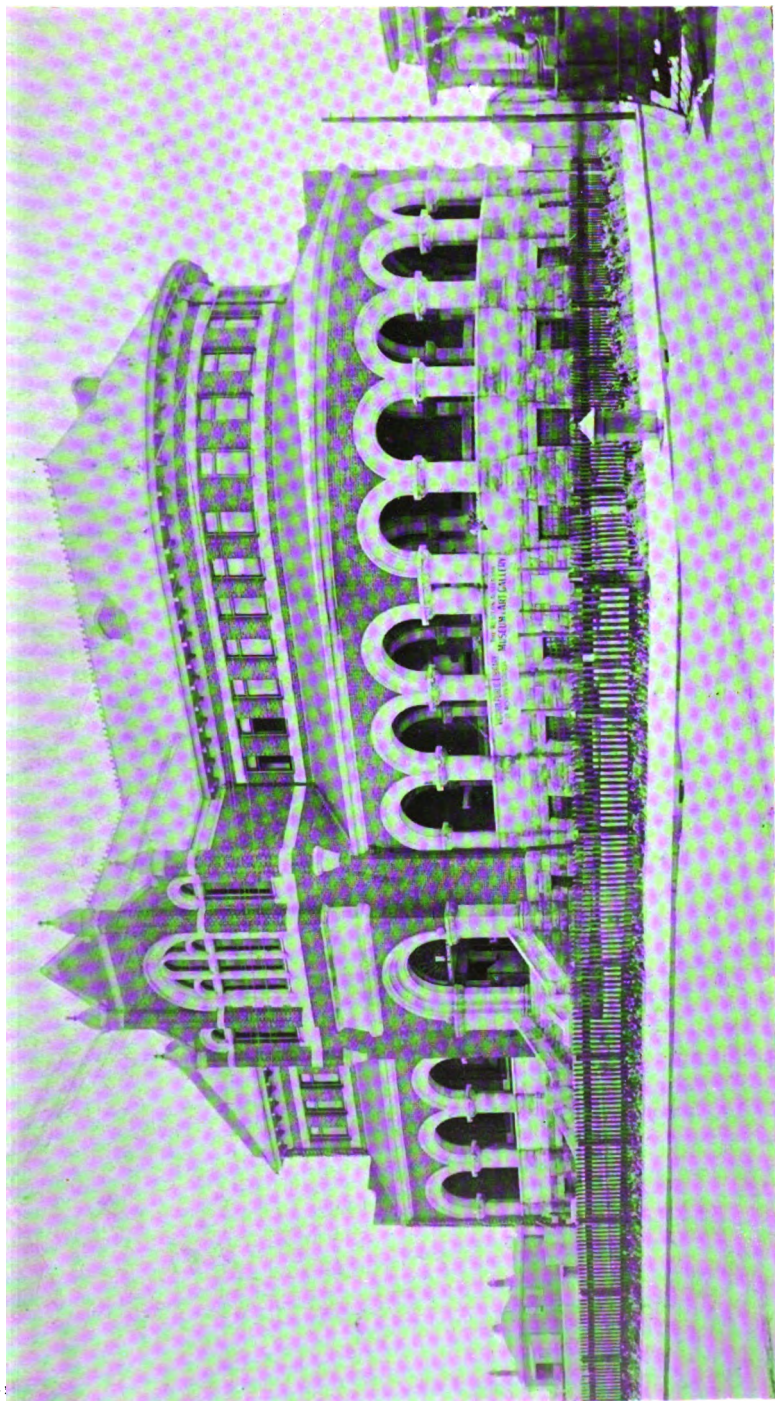
MUSEUM OF ROSENHEIM, UPPER BAVARIA.

A peasant kitchen, reconstructed by Mr. Franz Zell, architect, in Munich.



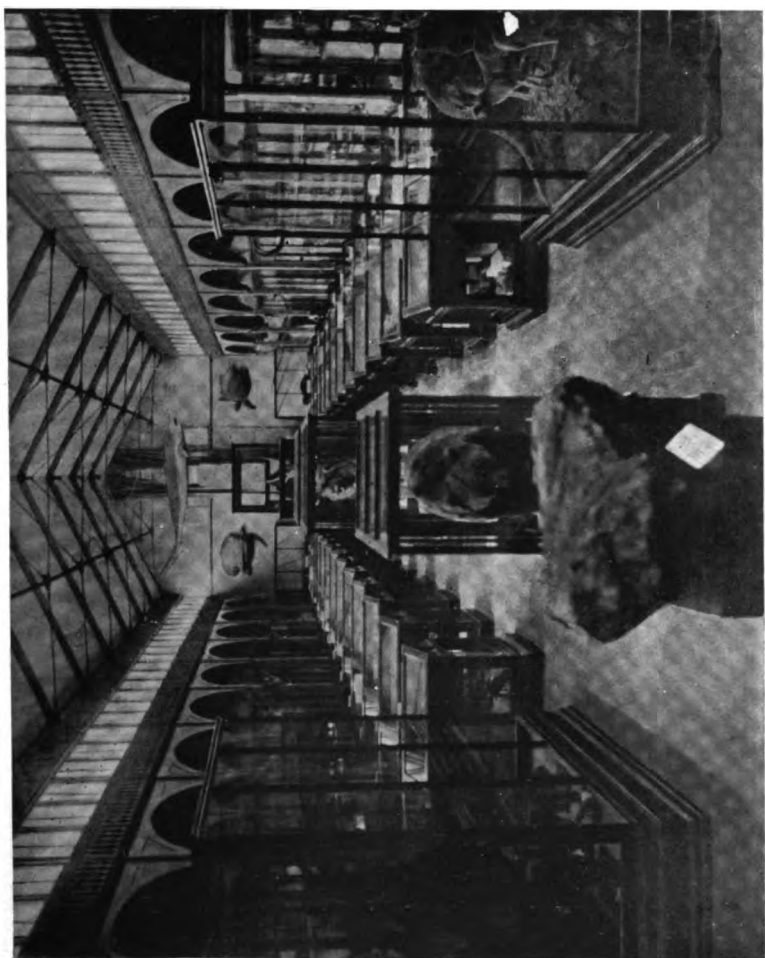
MUSEUM OF PEASANT ART, KAUFBEUREN, SUABIA  
Cottage interior from East Algiu.





WESTERN AUSTRALIAN MUSEUM AND ART GALLERY, PERTH, W.A.

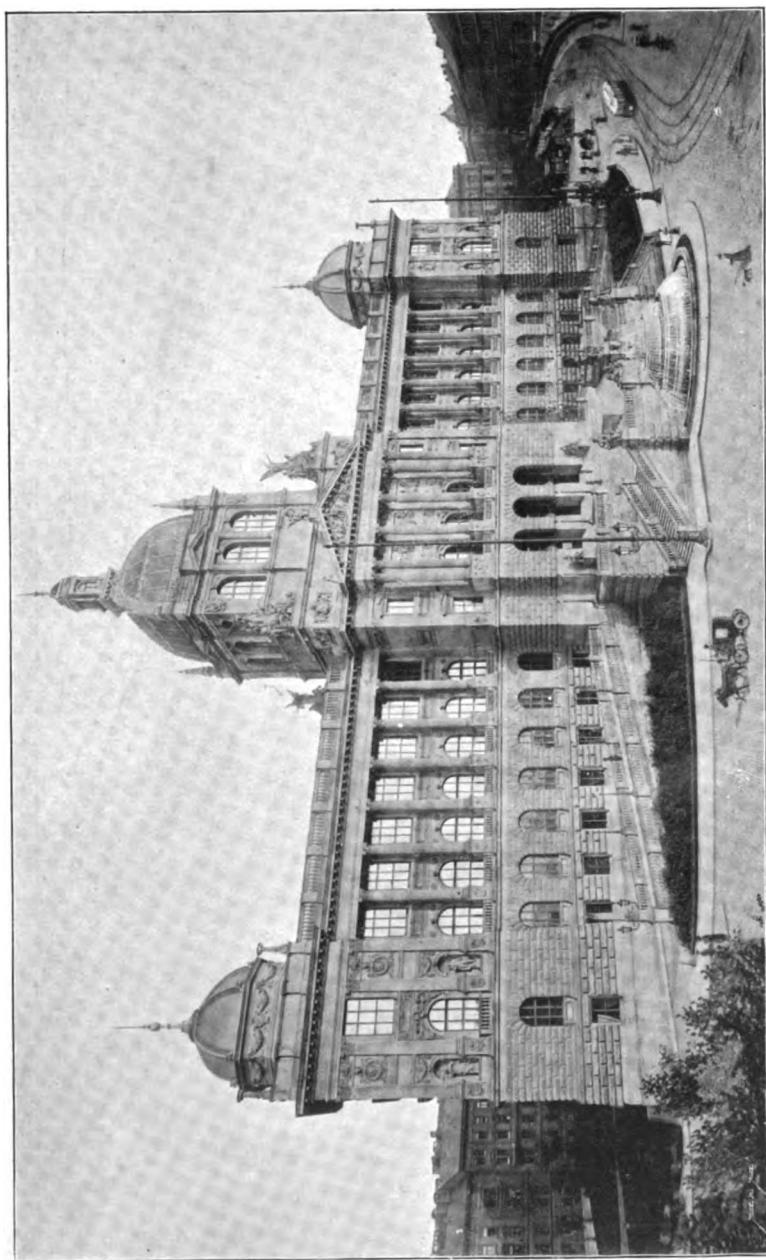




ZOOLOGICAL GALLERY—(LOOKING NORTH).







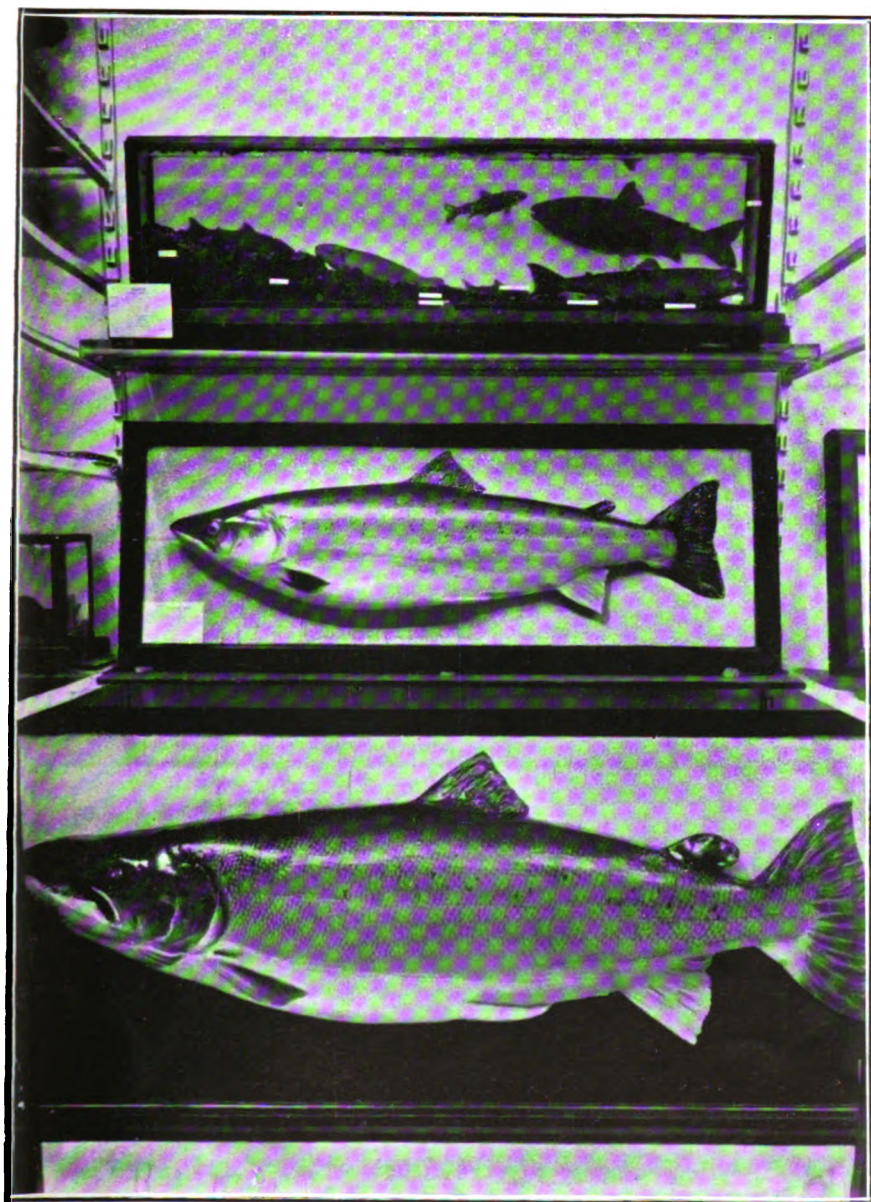
THE ROYAL BOHEMIAN MUSEUM, PRAGUE.



MUSEUM.

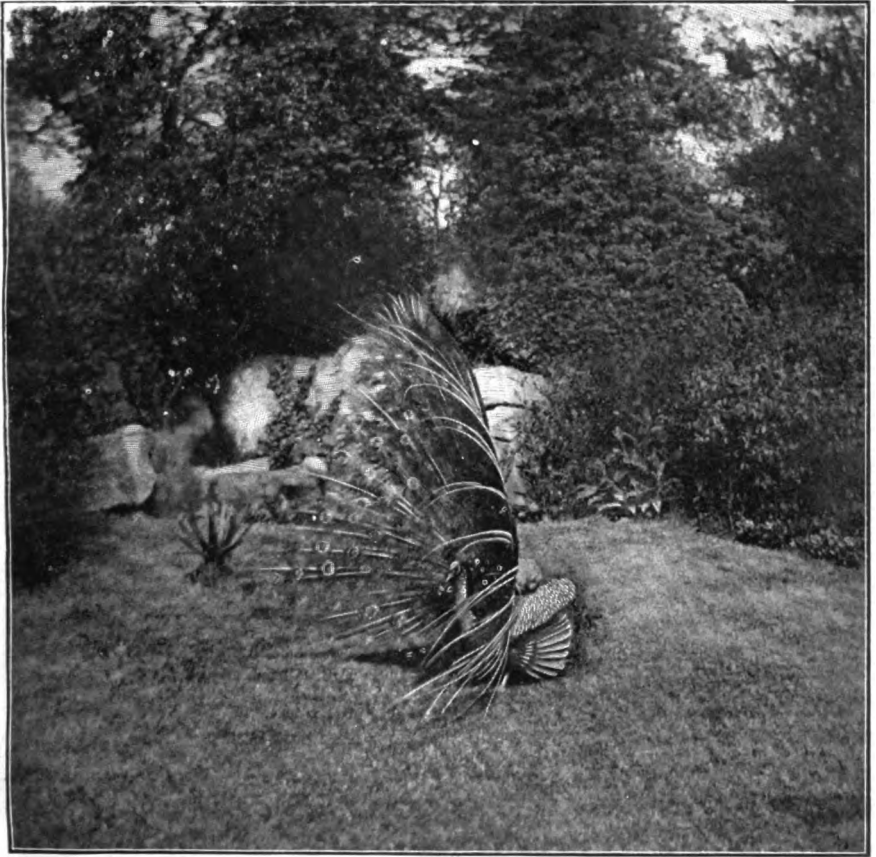






TANK AND CASTS ILLUSTRATING THE LIFE-HISTORY OF SALMON,  
PERTHSHIRE NATURAL HISTORY MUSEUM.





Side view of the PEACOCK in display, showing that, when erect, the train stands in front of the wings, and not behind them.



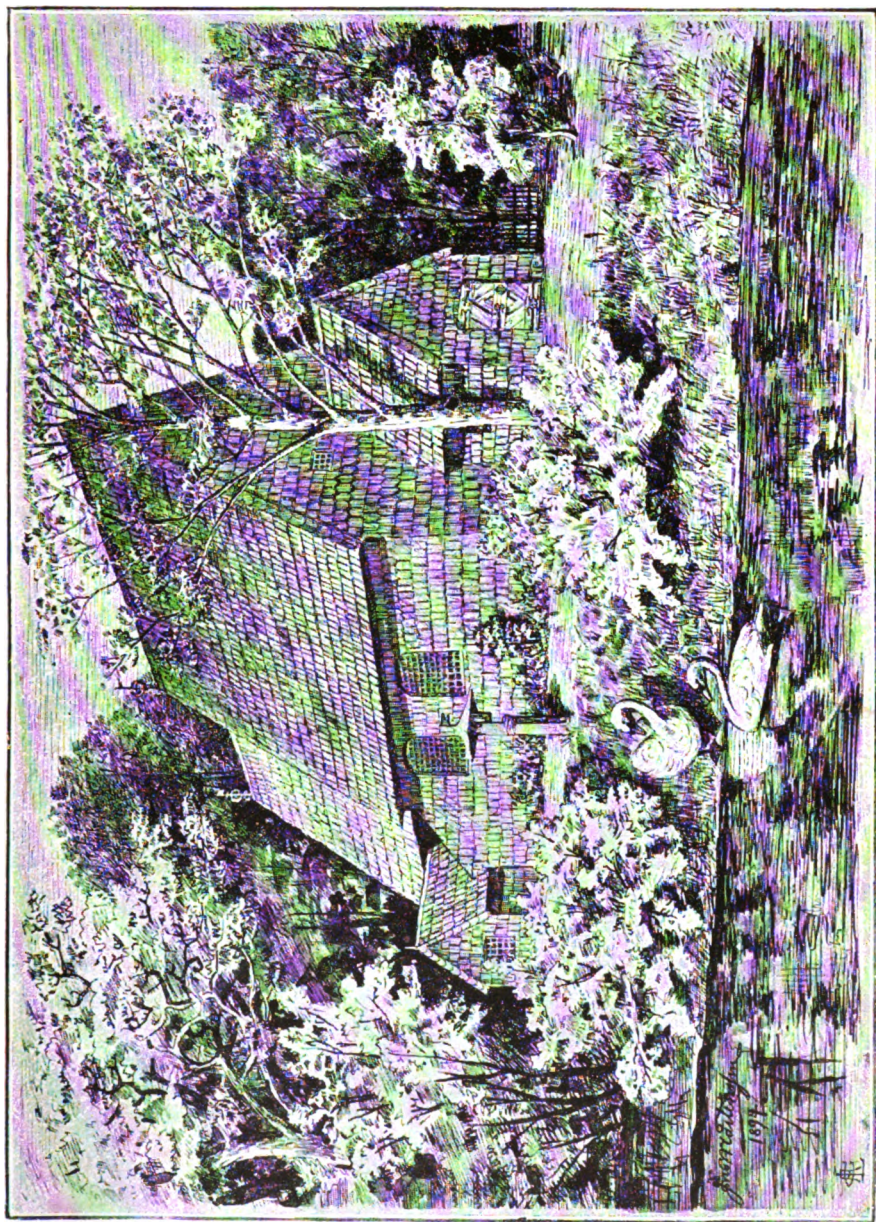








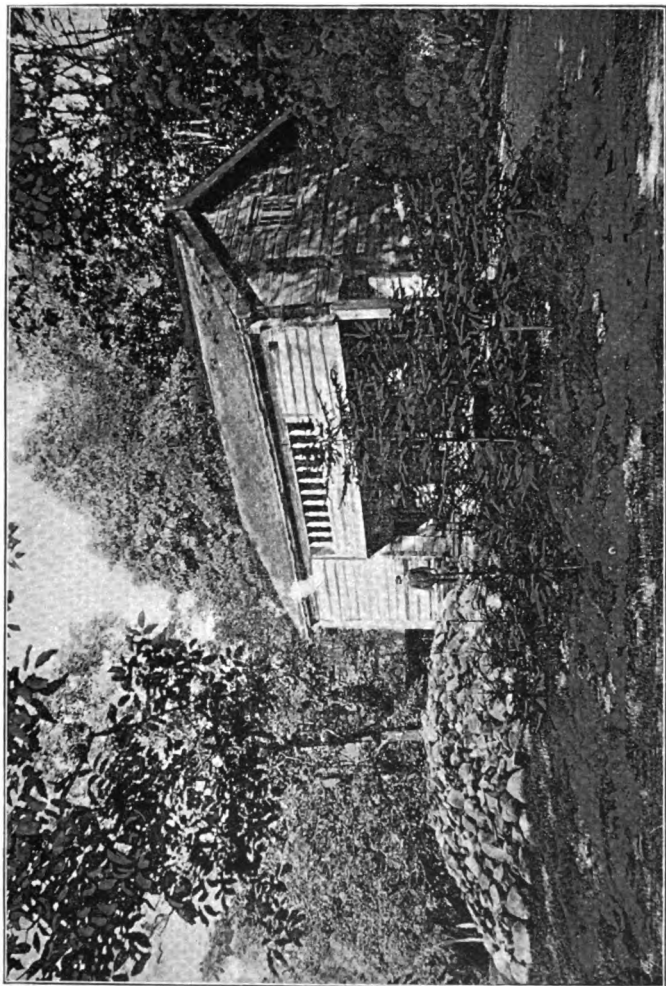




Old Church from Bosebo, near Jönköping, Sweden, re-erected at Lund Museum, where it is used for the display of Church Ornament.







Farm Outhouse from *Småland*, re-erected at Lund Museum, where it is used for the display of Farm Implements.





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**66, BERNERS STREET,**

**. . LONDON, W.**

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**Weapons, Curiosities, &c.,**

**FOR SALE AT MODERATE PRICES.**

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**Lists Free, on application to**

**W. O. OLDMAN, 77, Brixton Hill, London.**

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**C. GUNDLACH & MÜLLER,**

**OTTENSEN, Near HAMBURG, GERMANY.**

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**Manufacturers of all kinds of GLASS JARS for Museum purposes especially,**

**SQUARE JARS with Ground Glass Covers and Polished Face.**

**CYLINDRICAL JARS with Stoppers or Corks, etc., etc.**

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**ALL ORDERS WILL BE PROMPTLY EXECUTED. FIRST-RATE REFERENCES ON APPLICATION.**

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**C. GUNDLACH & MÜLLER.**

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**Marine Biological Association of the United Kingdom.**

**Specimens of MARINE ANIMALS and PLANTS specially preserved for  
Museum purposes. For detailed Lists and Prices apply to**

**THE DIRECTOR, BIOLOGICAL LABORATORY, PLYMOUTH**

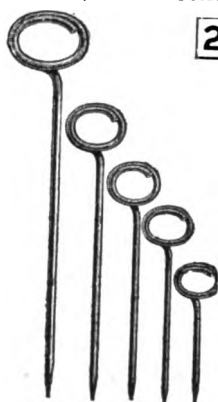
ESTAB.  
1846.

**WM. POTTER & SONS, Ltd.,**

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1846.

**160 & 161, ALDERSGATE ST., LONDON, E.C.**

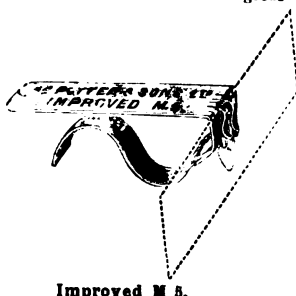
**PLATE GLASS CASES, SHOW STANDS, &c., for Museums or Private Collections**  
**Makers of Clips, Hooks, Specimen Holders, Fasteners, Boxes, & Sundries to the British Museum, &c.**  
**BOXES, CASES, HOOKS, HOLDERS, and CLIPS for Specimens of any description made to order.**



**No. 1.—Descriptive Label Holders.**

Height, 1  $1\frac{1}{2}$  2  $2\frac{1}{2}$  3 4 5 inches

4/- 6/- 8/- 10/- 12/- 15/- 18/- per gross



**Improved M 5.**

A most useful Clip for holding label at right angle to shelf.

Price 9/- per gross.

**No. 3.—Improved Specimen Holder.**

With sliding adjuster and clip for descriptive ticket. 4/- per dozen; 42/- per gross. Sizes  $1\frac{1}{2}$  in.,  $2\frac{1}{2}$  in., and  $3\frac{1}{2}$  in. high. Or fitted with base to stand, 8/- per dozen.



**No. 21.**

**Label Holder.**

Exceedingly neat  
Will take stout  
or thin card.

**In Three Sizes.**

per gross.

No. 1. Pin  $\frac{3}{8}$  in. 2/6

.. 2. ..  $1\frac{1}{2}$  in. 6/-

.. 3. ..  $2\frac{1}{2}$  in. 9/-

**Plate Glass Show Cases**

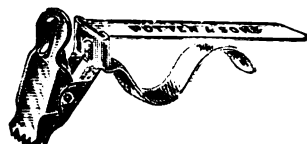
are stocked in various styles and sizes.

Specification, with Estimate, furnished free, for any kind of Case, on receipt of particulars.

**2.2.0**

**The "NEEDLE" CLIP (Patented).** 3/6 per gross.

Its application is obvious. It has a sharp needle point, and will hold descriptive ticket in any position in trays or cases. Can be put about in stands, &c. Altogether one of the most useful novelties ever introduced and very cheap.



**The "Simplex" Shelf Clip.**

For holding specimens from  $\frac{1}{4}$  or  $\frac{3}{8}$  in. shelf. Specially useful for long narrow labels.

1/6 per doz.; 15/- per Gross.

**Screw Hooks for Cases, &c.**

Best possible make, guaranteed truly tapped, bronzed brass (non-corrosive).

Medium

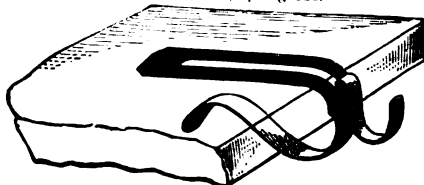
Large K



8/- per gross.

10/- gross.

Small size at 5/- per gross.



**No. M 2. STEEL SHELF HOOK.**

For Holding Specimens from  $\frac{1}{4}$  or  $\frac{3}{8}$  inch shelf.

9/- per Gross.

Also for  $\frac{1}{2}$  inch shelves at same price.



THE IMPROVED REVERSIBLE

**L 1008.** Price, 8/- per gross.

For holding descriptive labels. Having two spikes it is absolutely rigid when once pressed into position. A Sample will be sent Free on application.



**The Aldersgate Stand (Patented)**

For supporting descriptive cards at any angle.  
 Small size, 2 in. by  $1\frac{1}{2}$  in. .. 10/- per gross.  
 Large size,  $\frac{3}{4}$  in. by  $2\frac{1}{2}$  in. .. 24/- ..

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# WM. POTTER & SONS, Ltd.,

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**160 & 161, ALDERSGATE ST., LONDON, E.C.**

Makers of Clips, Hooks, Specimen Holders, Fasteners, Boxes, and Sundries to the British Museum, South Kensington Museum, Science and Art Dept., Dublin, Derby Museum, Horniman Museum, and numerous Home and Colonial Institutions.

Estimates furnished for Requirements in either of above Departments. Quotations, Illustrations, and Samples application.



Best Quality Oxidized

## STEEL PINS.

These are specially useful in the Geological Section. Stocked in five sizes.

LENGTH.	GAUGE.	PER GROSS.
2 in.	17	1/6
1 in.	18	2/-
1 1/2 in.	16	2/6
1 1/4 in.	15	3/-
2 in.	15 1/2	3/6



## No. 18.—Metal Box for Specimens.

Round, Silver colour shouldered, and dust tight.

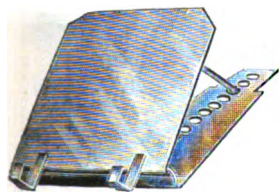
WITH GLASS LIDS.

No. 1 size—1 1/2 in. by 1 1/2 in.	10/6 per gross
No. 2 size—2 in. by 2 in.	13/6
No. 3 size—2 1/2 in. by 2 1/2 in.	16/-
No. 4 size—3 in. by 3 in.	21/-
No. 5 size—3 1/2 in. by 3 1/2 in.	24/6
No. 6 size—4 in. by 4 in.	29/6

ALL METAL.

No. 7 size—1 1/2 in. by 1 1/2 in.	7/6 per gross
No. 8 size—2 in. by 2 in.	9/6
No. 9 size—2 1/2 in. by 2 1/2 in.	10/6
No. 10 size—3 in. by 3 in.	13/-
No. 11 size—3 1/2 in. by 3 1/2 in.	15/-
No. 12 size—4 in. by 4 in.	17/6

N.B.—Not less than One Gross of any size or kind supplied.



THE  
'DEFECTIVE'  
STAND.

PRICE—

4/- per doz.

42/- gross.

This new introduction has been specially produced to meet the constant demand for a stand to carry, at variable angles, SPECIMENS, LABELS, etc. For many purposes it will be found superior to any on the market. Write for a sample. Sent free on application.

## BEST SHEET WOOL BETWEEN TISSUE.



Fine White, 2/6 per lb.

„ Pink, 5/- „

„ Blue, 6/- „

About 25 Sheets to the Pound

## SPECIAL NOTICE.

Estimates furnished free for Card Trays, Glass Top Boxes (other than stock kinds and sizes), Plate Glass Show Cases, Cabinets, etc. on receipt of full particulars.

## Round Glass-Top Boxes.

Cardboard, covered steel-blue paper.

In six sizes, nested.

Size 1.	1 1/2 in. x 1 1/2 in.	14/- per gross.
„ 2.	1 3/4 in. x 1 3/4 in.	16/- „
„ 3.	1 7/8 in. x 1 7/8 in.	18/- „
„ 4.	1 7/8 in. x 1 7/8 in.	20/- „
„ 5.	2 1/4 in. x 1 3/4 in.	24/- „
„ 6.	2 1/2 in. x 1 3/4 in.	32/- „
or, assorted equally		21/- „



## No. 14.—Glass-Topped Specimen Boxes.

Lined white paper inside and black outside. As used at the Geological Museum, London.

No.	Length	Width	Depth.	
1 size—2 in.	by 1½ in.	by ¾ in.	..	18/- per gross.
2 size—2½ in.	by 1½ in.	by 1 in.	..	21/- "
3 size—3 in.	by 2½ in.	by 1½ in.	..	24/- "
4 size—3½ in.	by 2½ in.	by 1½ in.	..	27/- "
5 size—4 in.	by 3 in.	by 1½ in.	..	31/- "
6 size—4½ in.	by 3½ in.	by 1½ in.	..	36/- "
The above 6 sizes, as sorted equally				.. 27/- "

Outside measurements are quoted. Any other size, shape, or quality made to order.

Also extra stout make in the following size—covered green Cloth.

8 in. by 6 in.	by 1 1/2 in.	16/- per doz.
10 in. by 8 in.	by 2 in.	20/- „
12 in. by 9 in.	by 2 1/2 in.	32/- „
14 in. by 10 in.	by 3 in.	38/- „
16 in. by 12 in.	by 3 1/2 in.	44/- „
18 in. by 14 in.	by 4 in.	50/- „
20 in. by 16 in.	by 4 1/2 in.	56/- „



## No. 15.—No Lid Cardboard Tray for Specimens.

Same length, width, and finish as boxes No. 14, but are 1/2 in. high.

Size	1	2	3	4	5	6
4/-	5/-	6/-	7/6	9/-	10/6	per gross

Larger sizes to order

## Cardboard for Mounting or Label Writing.

No. 266.	Size 24 by 19, 6-sheet Cardboard	2/3 per doz.
No. 267.	Size 24 by 19, 8-sheet Cardboard	2/6 „
No. 268.	Size 24 by 19, 12-sheet Cardboard	3/- „
No. 270.	Size 24 by 19, Stout Tinted Board	3/6 „
No. 273A.	Ivory Card, 24 by 19, thick	4/6 „
No. 270B.	Ivory Card, 24 by 19, medium	4/- „
No. 270C.	Ivory Card, 24 by 19, thin	3/6 „

Half the above sizes at half the prices.

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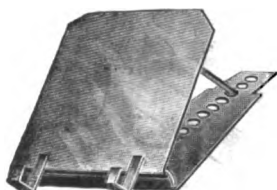
Estimates furnished for Requirements in either of above Departments. Quotations, Illustrations, and Samples application.



Best Quality Oxidized  
**STEEL PINS.**

These are specially useful in the Geological Section. Stocked in five sizes.

LENGTH.	GAUGE.	PER GROSS.
3 in.	17	1/6
1 "	"	2/-
1 1/2 "	16	2/6
1 1/2 "	"	3/-
2 "	15 1/2	3/6



THE  
**'DEFLECTIVE'**  
STAND.  
PRICE—  
4/- per doz.  
42/- „ gross.

This new introduction has been specially produced to meet the constant demand for a stand to carry, at variable angles, SPECIMENS, LABELS, etc. For many purposes it will be found superior to any on the market. Write for a sample. Sent free on application.

### BEST SHEET WOOL BETWEEN TISSUE.



*Fine White, 2/6 per lb.*  
„ *Pink, 5/-* „  
„ *Blue, 6/-* „

About 25 Sheets to the Pound

### SPECIAL NOTICE.

Estimates furnished free for Card Trays, Glass Top Boxes (other than stock kinds and sizes), Plate Glass Show Cases, Cabinets, etc. on receipt of full particulars.



**No. 18.—Metal Box for Specimens.**

Round, Silver colour, shouldered, and dust tight.

WITH GLASS LIDS.		
No. 1 size—1 1/2 in. by 2 in.	10/6	per gross
No. 2 size—2 in. by 2 1/2 in.	13/6	"
No. 3 size—2 1/2 in. by 3 in.	16/-	"
No. 4 size—2 1/2 in. by 3 1/2 in.	21/-	"
No. 5 size—2 1/2 in. by 4 in.	24/6	"
No. 6 size—3 1/2 in. by 4 1/2 in.	29/6	"

ALL METAL.		
No. 7 size—1 1/2 in. by 2 in.	7/6	per gross
No. 8 size—2 in. by 2 1/2 in.	9/6	"
No. 9 size—2 1/2 in. by 3 in.	10/6	"
No. 10 size—2 1/2 in. by 3 1/2 in.	13/-	"
No. 11 size—2 1/2 in. by 4 in.	15/-	"
No. 12 size—3 1/2 in. by 4 1/2 in.	17/6	"

N.B.—Not less than One Gross of any size or kind supplied.

### Bound Glass-Top Boxes.

Cardboard, covered steel-blue paper.

In six sizes, nested.

Size 1.	1 1/2 in. x 1 1/2 in.	14/-	per gross.
.. 2.	1 3/4 in. x 1 3/4 in.	16/-	"
.. 3.	1 3/4 in. x 2 in.	18/-	"
.. 4.	1 3/4 in. x 2 1/2 in.	20/-	"
.. 5.	2 1/2 in. x 1 3/4 in.	24/-	"
.. 6.	2 1/2 in. x 2 in.	32/-	"
or, assorted equally		21/-	"



**No. 14.—Glass-Topped Specimen Boxes.**

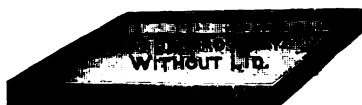
Lined white paper inside and black outside. As used at the Geological Museum, London.

No.	Length.	Width	Depth.	
1 size—2 in.	by 1 1/2 in.	by 1 in.	..	18/- per gross.
2 size—2 1/2 in.	by 1 1/2 in.	by 1 in.	..	21/- "
3 size—3 in.	by 2 1/2 in.	by 1 1/2 in.	..	24/- "
4 size—3 1/2 in.	by 2 1/2 in.	by 1 1/2 in.	..	27/- "
5 size—4 in.	by 3 in.	by 1 1/2 in.	..	31/- "
6 size—4 1/2 in.	by 3 1/2 in.	by 1 1/2 in.	..	36/- "
The above 6 sizes, assorted equally				27/-

Outside measurements are quoted shape, or quality made to order.

Also extra stout make in the following sizes covered

green Cloth.	8 in. by 6 in.	by 1 1/2 in.	..	16/- per doz.
10 in. by 8 in.	by 2 in.	..	..	20/- "
12 in. by 9 in.	by 2 1/2 in.	..	..	32/- "
14 in. by 10 in.	by 3 in.	..	..	38/- "
16 in. by 12 in.	by 3 1/2 in.	..	..	44/- "
18 in. by 14 in.	by 4 in.	..	..	50/- "
20 in. by 16 in.	by 4 in.	..	..	56/- "



**No. 15.—Neat Cardboard Tray for Specimens.**

Same length, width, and finish as boxes No. 14, but are 1/2 in. high.

Size	1	2	3	4	5	6
4/-	5/-	6/-	7/6	9/-	10/6	per gross

Larger sizes to order

### Cardboard for Mounting or Label Writing.

No. 266.	Size 24 by 19, 6-sheet Cardboard	..	2 3	per doz.
No. 267.	Size 24 by 19, 8-sheet Cardboard	..	2 6	"
No. 268.	Size 24 by 19, 12-sheet Cardboard	..	3 6	"
No. 270.	Size 24 by 19, Stout Tinted Cardboard	..	3 6	"
No. 273A.	Ivory Card, 24 by 19, thick	..	4 6	"
No. 270B.	Ivory Card, 24 by 19, medium	..	4	"
No. 270C.	Ivory Card, 24 by 19, thin	..	3 6	"

Half the above sizes at half the prices.

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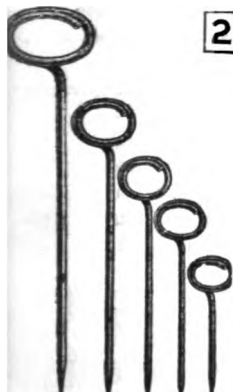
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**PLATE GLASS CASES, SHOW STANDS, &c., for Museums or Private Collections**  
**Makers of Clips, Hooks, Specimen Holders, Fasteners, Boxes, & Sundries to the British Museum, &c.**  
**BOXES, CASES, HOOKS, HOLDERS, and CLIPS for Specimens of any description made to order.**

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The "NEEDLE" CLIP (Patented). 3/6 per gross.

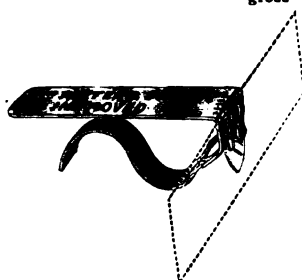
Its application is obvious. It has a sharp needle point, and will hold descriptive ticket in any position in trays or cases. Can be put about in stands, &c. Altogether one of the most useful novelties ever introduced and very cheap.



No. 1.—Descriptive Label Holders.

Height, 1 1/2 2 2 1/2 3 4 5 inches

4/- 6/- 8/- 10/- 12/- 15/- 18/- per gross



Improved M 5.

A most useful Clip for holding label at right angle to shelf.

Price 9/- per gross.

No. 3.—Improved Specimen Holder.

With sliding adjuster and clip for descriptive ticket, 4/- per dozen; 42/- per gross. Sizes 1 1/2 in., 2 1/2 in., and 3 1/2 in. high. Or fitted with base to stand, 8/- per dozen.



The "Simplex" Shelf Clip.

For holding specimens from 1/4 or 1/2 in. shelf. Specially useful for long narrow labels.

1/6 per doz.; 15/- per Gross.

Screw Hooks for Cases, &c.

Best possible make, guaranteed truly tapped, bronzed brass (non-corrosive).

Medium

K

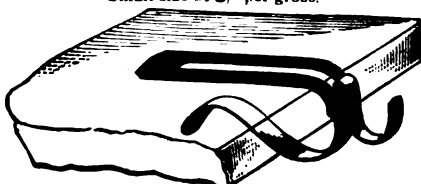


8/- per gross.

Large K



10/- gross.  
Small size at 5/- per gross.



N. N2. STEEL SHELF HOOK.

For Holding Specimens from 1/4 or 1/2 inch shelf.

9/- per Gross.

Also for 1/2 inch shelves at same price.



L 1008. Price. 8/- per gross.

For holding descriptive labels. Having two apikes it is absolutely rigid when once pressed into position. A Sample will be sent Free on application.



The Aldersgate Stand (Patented)

For supporting descriptive cards at any angle.  
 Small size, 2 in. by 1 1/2 in. .. 10/- per gross.  
 Large size, 1 1/2 in. by 2 1/2 in. .. 24/- ..

**CARBON.**

**A GOOD CONDUCTOR**

No. 21.

Label Holder.

Exceedingly neat  
 Will take stout  
 or thin card.

In Three Sizes.

per gross,

No. 1. Pin 1/2 in. 2/6

.. 2. .. 1 1/2 in. 6/-

.. 3. .. 2 1/2 in. 9/-

Plate Glass Show Cases

are stocked in various styles and sizes.

Specification, with Estimate, furnished free, for any kind of Case, on receipt of particulars.















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